

InfoPrint Manager: Reference

Version 4 Release 3

S550-1052-02

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Note:

Before using this information and the product it supports, read the information in "Notices" on page 1055.

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Chapter 1. Introduction

This publication describes the InfoPrint[®] Manager:

- Commands
- Flags used with AIX[®] print commands
- Administrative utilities
- Daemon utilities
- Transform commands
- Object attributes
- Environment variables
- Notification events and event classes

Who should read this publication

This publication is intended for the person responsible for installing, customizing, operating, or administering InfoPrint.

About the documentation for InfoPrint

InfoPrint provides these types of documentation:

- InfoPrint library in portable document format (PDF) or hard copy
- InfoPrint documentation on the World Wide Web
- Online help for InfoPrint Submit Express, the InfoPrint Administration GUI, the InfoPrint Operations GUI, the InfoPrint SMIT administrator's interface, and the InfoPrint SMIT operator's interface
- Manual (man) pages (AIX only)
- InfoPrint online message catalog
- **readme** files

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.

Most recent information

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

Other publications related to InfoPrint

These publications contain information you might find useful while installing, administrating, and using InfoPrint:

- *AIX Commands Reference* books. For administrators, operators, and end users, these publications provide complete information about AIX commands.
- *PSF/MVS MVS Download Guide*, G544-5294. For administrators and job submitters, this publication provides instructions for setting up the MVS™ Download support on PSF/MVS so that data can be sent from the Job Entry Subsystem (JES) spool on MVS for printing on an InfoPrint system.
- *Printing for Fun and Profit under AIX*, GG24-3570. For administrators and system engineers, this publication provides instructions for installing printer devices and configuring AIX print queues.
- *Infoprint Fonts: Font Summary*, G544-5846. For administrators and job submitters, this publication summarizes the two Infoprint® Font products: Infoprint Fonts for z/OS® (5648-E76) and Infoprint Fonts for Multiplatforms (5648-E77). It describes font concepts, and it contains font summary tables for Expanded Core Fonts, DBCS Core Fonts, and Simulation Fonts. It also contains a table listing the code pages.
- *Advanced Function Presentation: Font Summary*, G544-3810. For administrators and job submitters, this publication provides information about IBM® fonts.

- *InfoPrint Data Stream and Object Architectures: Bar Code Object Content Architecture Reference*, S544-3766. For administrators, this publication provides information about bar codes.
- *InfoPrint Data Stream and Object Architectures: Font Object Content Architecture Reference*, S544-3285. For administrators, this publication provides information about coded fonts.
- *InfoPrint Data Stream and Object Architectures: Graphics Object Content Architecture Reference*, S544-5498. For administrators, this publication provides information about printing graphics.
- *InfoPrint Data Stream and Object Architectures: Image Object Content Architecture Reference*, SC31-6805. For administrators and job submitters, this publication provides information about the IOCA data stream.
- *InfoPrint Data Stream and Object Architectures: Mixed Object Document Content Architecture Reference*, SC31-6802. For administrators and job submitters, this publication provides information about the MOD:CA data stream.
- *TCP/IP Tutorial and Technical Overview*, GG24-3376. For networking specialists, this publication provides an overview of the Transmission Control Protocol/Internet Protocol (TCP/IP) and its uses in heterogeneous networks.

Manual (man) pages for InfoPrint commands, utilities, and transforms

Online information, in manual (man) page format, is available for all InfoPrint commands and utilities. You can use the AIX **man** command to view man pages for these InfoPrint commands:

- listconv
- lprafp
- lsippgw
- mkfntmap
- pdaccount
- pdclean
- pdcreate
- pddelete
- pddeviceop
- pddisable
- pdenable
- pdls
- pdmod
- pdpause
- pdpr
- pdpromote
- pdq
- pdreorder
- pdresubmit
- pdresume
- pdrm
- pdset
- pdshutdown
- pdspace
-
- uconv

For example, to view online information for the **pdpr** command, enter:

```
man pdpr
```

You can use the AIX **man** command to view this man page for the **-o** flag, which is used to pass information to InfoPrint on AIX print commands:

- oflag

You can use the AIX **man** command to view man pages for these InfoPrint utilities:

- afpsplit
- ainupod1
- ainupod2
- ainupod3
- ainurpt1
- ainurpt2
- ainurpt3
- ainurpt4
- ainurpt5
- ainurpt6
- ainurpt7
- ainurpt8
- ainurpt9
- allocatefs
- cfu
- cmt
- ipguiadv
- ipguibasic
- ipguiadvadm
- ipguibasicadm
- jsmigr
- pdcrdflt
- pdcrmed
- pdinitports
- pdmigpp
- pdmincfg
- pdmsg
- pdnetifspri
- pdwsinitports
- rc.iprsap
- rc.pd
- setup
- startppo
- start_server
- startsrv
- stop_server

You can use the AIX **man** command to view man pages for these InfoPrint daemon utilities:

- mvsprsd
- pcl2afpd
- ps2afpd
- startcbd
- startippgw
- startsapconnectd
- startnotd
- stopcbd
- stopippgw
- stopnotd
- stopsapconnectd

You can use the AIX **man** command to view man pages for these InfoPrint transform commands:

- db2afp
- d2afp
- gif2afp
- img2afp
- jpeg2afp
- line2afp
- pcl2afp
- pdf2afp
- ppm12afp
- ps2afp
- sap2afp
- tiff2afp
- xml2afp
- xml2pdf

For information about the flags that you can use with the **man** command, see the **man** man page or to the *AIX Commands Reference*.

Note: The syntax representation for the commands, utilities, and transforms has been changed to graphic notation. However, only new manpages and manpages with technical changes are updated. See “Reading Syntax Diagrams” on page 9 for more information about graphic notation.

Manual (man) pages for InfoPrint attributes

The Manual Pages for InfoPrint Attributes are no longer being revised. For the most current information about InfoPrint Attributes, consult Chapter 3, “InfoPrint object attributes,” on page 471 in this manual.

InfoPrint online message catalog

InfoPrint supplies a message catalog for the messages that are issued during its operation. For each message, the message catalog includes the text of the message, an explanation, a system action, and a response. You can view all information for a specific InfoPrint error message by issuing the InfoPrint **pdmsg** utility followed by the message number.

For example, from the command line enter:

```
pdmsg 5010-096
```

Messages issued by InfoPrint have these prefixes:

- 0420
- 0421
- 0422
- 0423
- 0424
- 0425
- 5010

See the InfoPrint **pdmsg** man page for a complete description of the **pdmsg** utility.

To view information about an AIX message, enter the AIX **info** command with the **-h** flag, followed by the message number. For example, from the command line enter:

```
info -h MessageNumber
```

where *MessageNumber* is the number of the AIX message.

readme files

The **readme** files on the InfoPrint CD-ROMs contain information about the contents of the CD-ROM. However, only seven of the CD-ROMs shipped with InfoPrint Manager contain readme files. Last-minute information about InfoPrint that the publications and online information do not contain can be located on the InfoPrint Solutions Company Web site in the Release Notes for the operating systems. You can use the AIX **more** command or a text editor, such as **dtpad** or **vi** on AIX, EPM on OS/2®, or Notepad on Windows, to view the contents of the **readme** files.

Viewing PDF publications on an AIX or Windows system

InfoPrint provides software publications in PDF files on the publications CD-ROM. You can also go to the InfoPrint Solutions Company Web site at

<http://www.infoprint.com> to download the software publications of InfoPrint Manager for AIX or InfoPrint Manager for Windows.

To view or print the publications on the CD-ROMs:

1. Log in to AIX as **root** or as a member of the **system** group.
2. Insert the InfoPrint publications CD-ROM into the drive.
3. To determine the identifier of your CD-ROM drive, enter on the AIX command line:

```
lsdev -C -c cdrom
```
4. Then enter:

```
mount -v cdrfs -r /dev/cdn /cdrom
```

where *cdn* is the identifier of your CD-ROM drive, and */cdrom* is the file system that was created to install InfoPrint.

5. If your AIX server or Windows system has an internet browser, such as Netscape or Internet Explorer, select the **aixindex.html** file in the appropriate language directory and click the descriptions to view the appropriate PDF file. For example, if you use English, access the **/cdrom/english/aixindex.html** file.
6. To use the Adobe® Acrobat Viewer, enter:

```
cd /usr/lpp/Acrobat3/bin  
./acroexch
```

Click **Help** to learn how to view or print a publication.
7. If you have installed the Adobe Acrobat Viewer on Windows, you can print or view the InfoPrint PDF publications from your Windows system. On Windows, the publications directory is called *d:\cdrom\books\language*, where *d*: is the identifier of your CD-ROM drive and *language* is the appropriate language for the books.

The organization of this publication

This publication contains these sections:

- Chapter 1, “Introduction,” on page 1 gives some general information about invoking InfoPrint commands, utilities, and transforms and introduces the InfoPrint object classes.
- Chapter 2, “InfoPrint Manager Tools,” on page 21 describes these InfoPrint Manager tools:
 - “InfoPrint commands” on page 21 describes the syntax, use, flags, attributes, and arguments of the InfoPrint commands and shows examples of each command.
 - “The -o flag for AIX print commands and the InfoPrint Manager lprafp command” on page 140 describes the **-o** flag, which is used with AIX print commands to pass information to InfoPrint.
 - “InfoPrint administrative utilities” on page 175 describes the syntax, use, flags, and arguments of the InfoPrint administrative utilities and shows examples of each utility.
 - “Daemon utilities for InfoPrint Manager for AIX” on page 224 describes the utilities that start InfoPrint daemons.
 - “InfoPrint transform commands” on page 245 describes the transforms used for converting data for printing with InfoPrint.

- Chapter 3, “InfoPrint object attributes,” on page 471 introduces information about InfoPrint Object Attributes and then describes each set of attributes as follows:
 - “Attributes for actual destinations” on page 478
 - “Attributes for auxiliary-sheet objects” on page 678
 - “Attributes for documents and default documents” on page 686
 - “Attributes for jobs and default jobs” on page 795
 - “Attributes for logs” on page 862
 - “Attributes for logical destinations” on page 868
 - “Attributes for media” on page 900
 - “Attributes for queues” on page 908
 - “Attributes for resource contexts” on page 923
 - “Attributes for servers” on page 926
 - “Attributes for transforms” on page 964
- Chapter 4, “InfoPrint environment variables,” on page 975 describes the InfoPrint and AIX environment variables that affect the processing of InfoPrint commands.
- Chapter 5, “Notification events and event classes,” on page 981 describes the InfoPrint events for which you can request notification.
- Appendix A, “Attribute-to-object listing,” on page 1003 contains a table listing all the InfoPrint attributes in alphabetical order and naming the objects that support each attribute.
- Appendix B, “Migrating PSF for AIX job script keywords to InfoPrint equivalents,” on page 1035 contains a table showing the attribute, or the flag or argument of the **pdpr** command, that replaces each PSF job script keyword when the job script is migrated to InfoPrint.
- Appendix C, “Job validation and scheduling,” on page 1039 describes how InfoPrint validates and schedules jobs. It contains tables showing the attributes used for validation and scheduling.
- Appendix D, “Form definitions and page definitions supplied with InfoPrint,” on page 1043 lists the form definitions and page definitions supplied with InfoPrint.

This publication also contains a glossary and an index.

Conventions used in this publication

This publication uses conventions for:

- Highlighting
- InfoPrint command notation

Note: In the Windows examples, *install_path* assumes that when you specify the install path, you will include the drive associated with the install path.

Highlighting

This publication uses four different types of highlighting:

Bold In this publication, bold highlighting identifies commands, attributes, files, directories, and other items whose names the system predefines, such as **pdpr** and **notification-profile**.

Italic When used in running text, italic highlighting identifies a variable item

whose actual name or value you supply, such as *AttributesFileName* or *Notification*. Italics also identify publication titles.

Bold Italic

When enclosed in double quotation marks, combined bold and italic highlighting identifies a specific attribute name that you enter exactly as shown and a variable value that you supply with the attribute. For example: "**copy-count=number**"

Monospace

When used in command examples, information in a monospaced font identifies the exact wording of the command.

Reading Syntax Diagrams

The syntax for InfoPrint Manager is shown using graphic notation. To read the diagrams, move from left to right and top to bottom, following the main path line.

Note: To ensure accessibility when viewing this book online, the syntax diagrams have been converted to graphic notation, which is also referred to as railroad track diagrams.

Style Rules:

Syntax diagrams use these style rules to show how to enter commands and parameters:

- A word in all italic letters shows a parameter that you can replace. For example:
FileName
shows that you replace *FileName* with a file name that is retained in the library.

▶▶—lprafp—*FileName*————▶▶

- A parameter above the line shows the default parameter. For example, **destination** is the default parameter in the syntax diagram for the **pdclean -c** command:

▶▶—pdclean— -c ———▶▶

destination
queue
server

Symbols:

Syntax diagrams use symbols to help you follow the flow of information they communicate:

- Statements begin with:
▶▶
- and end with:
——▶▶
- Statements longer than one line continue to a second line with:

-
- Where they resume with:



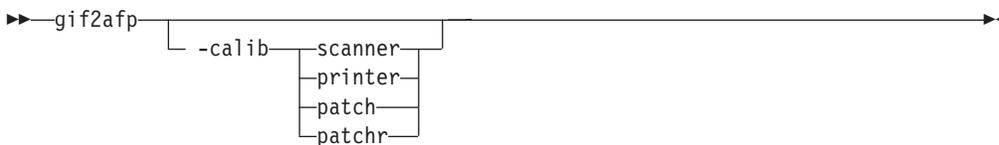
Required Parameters:

A parameter that you must include is displayed on the main path line. For example, the syntax diagram for the **jsmigr** command:



shows that you must follow **jsmigr** with its required parameter.

If there are two or more required parameters from which to choose, the parameters are shown with the first choice on the main path line and the other choices on branch lines under it. For example, the partial syntax diagram for **gif2afp** with the optional parameter **-calib**:

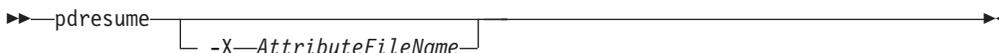


shows that you must type the command in any of these ways:

- **gif2afp -calib scanner**
- **gif2afp -calib printer**
- **gif2afp -calib patch**
- **gif2afp -calib patchr**

Optional Parameters:

Parameters that you can include with a command are displayed on the branch line below the main path line. For example, the partial syntax diagram for the **pdresume** command:



Branch lines can include branch lines of their own. An example of this is the partial syntax diagram for the **pdpr** command with the optional **-r** parameter:



Repeating Parameters:

An arrow on a line above a parameter means that you can either repeat the parameter or enter more than one of the listed parameters. An example of this is the partial syntax diagram for the **lprafp** command:

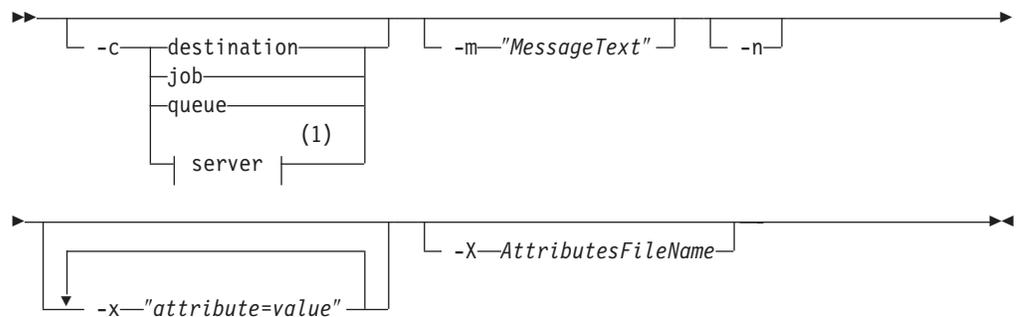


The arrow above *FileName* means you can include one or more file name parameters with the **lprafp** command.

Fragment Elements

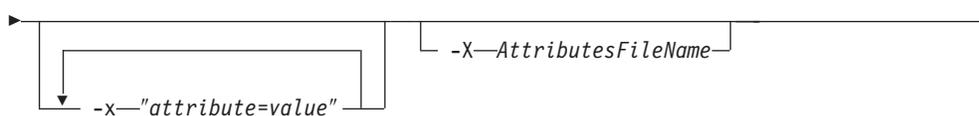
A syntax diagram can contain a section that either has too many items or groups to fit in the diagram or is used more than once. This section can be presented as a "fragment", and given a label that corresponds to the section in the main diagram. An example of this is the syntax diagram for the **pdpause -c** command with its fragmented **server** subcommand shown below:

pdpause



pdpause server:





Notes:

- 1 **server** is continued below the syntax diagram in a “fragment”.

Reference table for path names

AIX Path	Windows Path
/usr/lpp/psf/ps/psfonts.map	<i>install_path</i> \ps\fonts.map
/usr/lpp/psf/psf/bin/db2afp	<i>install_path</i> \bin\db2afp.exe
/usr/lpp/psf/db2afp/afpdfont.rc	<i>install_path</i> \bin\afpdfont.rc
/usr/lpp/psf/jpeg2afp/jpeg2afp.cfg	<i>install_path</i> \jpeg2afp\jpeg2afp.cfg
/usr/lpp/psf/reslib	<i>install_path</i> \reslib
/usr/lpp/afpfonts	<i>install_path</i> \fontlib
/usr/lpp/psf/fontlib	<i>install_path</i> \fontlib
/usr/lpp/ipfonts	<i>install_path</i> \Software\IBM Infoprint Fonts\Configuration\ <i>pathnam</i>
inpexit=/usr/lpp/psf/bin/apka2e	inpexit=c:\Program Files\IBM Printing Systems\bin\apka2e, which assumes you installed in the default path
inpexit=/usr/lpp/psf/bin/asciinpe	inpexit=c:\Program Files\IBM Printing Systems\bin\asciinpe, which assumes you installed in the default path
inpexit=/usr/lpp/psf/bin/asciinp	inpexit=c:\Program Files\IBM Printing Systems\bin\asciinp, which assumes you installed in the default path
formdef=memo userlib=/usr/afp/resources	formdef=memo userlib=d:\afp\resources
formdef=memo fdeflib=/usr/lib/formdefns	formdef=memo fdeflib=d:\lib\formdefns
pagedef=memo userlib=/usr/afp/resources	pagedef=memo userlib=d:\afp\resources
pagedef=memo pdeflib=/usr/lib/pagedefns	pagedef=memo pdeflib=d:\lib\pagedefns
/usr/lpp/psf/bin/line2afp	<i>install_path</i> \bin\line2afp.exe
/usr/lpp/psf/bin/acif	<i>install_path</i> \bin\acif.exe
/usr/lpp/psf/acif/apkinp.c, apkind.c, apkres.c, apkout.c, apka2e.c, ascinnp.c, dbblank.c	<i>install_path</i> \exits\acif\apkinp.c, apkind.c, apkres.c, apkout.c, apka2e.c, ascinnp.c, dbblank.c
/usr/lpp/psf/bin/apka2e, apkin, apkind, apkres, apkout, apka2e, ascinp, asciinpe, dbblank	<i>install_path</i> \bin\apka2e.dll, apkin.dll, apkind.dll, apkres.dll, apkout.dll, apka2e.dll, ascinp.dll, asciinpe.dll, dbblank.dll
/usr/lpp/psf/acif/apkexits.h	<i>install_path</i> \exits\acif\apkexits.h
/usr/lpp/psf/utls/bin/Makefile	No Windows equivalent

No AIX equivalent	<i>install_path</i> \exits\acif\apka2e.dsw, apkinp.dsw, apkind.dsw, apkres.dsw, apkout.dsw, apka2e.dsw, asciinp.dsw, ascinnpe.dsw (Microsoft® Visual C++ 6.0 Workspaces for the user exits)
No AIX equivalent	<i>install_path</i> \exits\acif\apka2e.dsp apkinp.dsp apkind.dsp apkres.dsp apkout.dsp apka2e.dsp asciinp.dsp ascinnpe.dsp (Microsoft Visual C++ 6.0 Project files for the user exits)
/usr/lpp/psf/pcl2afp	<i>install_path</i> \pcl2afp
/usr/lpp/psf/pcl2afp/pcl2afp.cfg	<i>install_path</i> \pcl2afp\pcl2afp.cfg
/usr/lpp/psf/pcl2afp/custom.cfg	<i>install_path</i> \pcl2afp\custom.cfg
/usr/lpp/psf/pcl2afp/custom.cfg	<i>install_path</i> \pcl2afp\custom.cfg
/usr/lpp/psf/pcl2afp/pcl2afpd.cfg	<i>install_path</i> \pcl2afp\pcl2afpd.cfg
/usr/lpp/psf/pcl2afp/myfile.cfg	d:\pcl\myfile.cfg
/usr/lpp/psf/pcl2afp/gl_before.pcl myfile.gl /usr/lpp/psf/pcl2afp/gl_after.pcl	<i>install_path</i> \pcl2afp\gl_before.pcl myfile.gl <i>install_path</i> \pcl2afp\gl_after.pcl
/usr/lpp/psf/pcl2afp/sample.pcl	<i>install_path</i> \pcl2afp\sample.pcl
/usr/lpp/psf/bin/pcl2afp	<i>install_path</i> \bin\pcl2afpd.exe
/usr/lpp/psf/bin/pcl2afpd	<i>install_path</i> \bin\pcl2afpd.exe
/usr/lpp/psf/bin/ppml2afp	<i>install_path</i> \bin\ppml2afp.exe
/usr/lpp/psf/pcl2afp/pcl2afp.cfg	<i>install_path</i> \pcl2afp\pcl2afp.cfg
/usr/lpp/psf/pcl2afp/pcl2afpd.cfg	<i>install_path</i> \pcl2afp\pcl2afpd.cfg
/var/psf/pcl2afp	<i>install_path</i> \var\psf\pcl2afp
/var/lpp/psf/bin/pcl6	<i>install_path</i> \bin\pcl6.exe
/usr/lpp/psf/ppml2afp/ppml2afp.cfg	<i>install_path</i> \ppml2afp\ppml2afp.cfg
/usr/lpp/psf/ps2afp/ps2afp.cfg	<i>install_path</i> \ps2afp\ps2afp.cfg
/usr/lpp/psf/ps2afp/ps2afpd.cfg	<i>install_path</i> \ps2afp\ps2afpd.cfg
/usr/lpp/psf/bin/ps2afp	<i>install_path</i> \bin\ps2afp
/usr/lpp/psf/bin/ps2afpd	<i>install_path</i> \bin\ps2afpd
/usr/lpp/psf/bin/pdf2afp	<i>install_path</i> \bin\pdf2afp
/usr/lpp/psf/bin/ppxps2i	<i>install_path</i> \bin\ppxps2i
/usr/lpp/psf/bin/ps2afpi	<i>install_path</i> \bin\ps2afpi.vm
/usr/lpp/psf/bin/ps2afpi.vm	<i>install_path</i> \bin\ps2afpi
/usr/lpp/psf/bin/ppxps2	<i>install_path</i> \bin\ppxps2
/usr/lpp/psf/bin/ps2afp.ps	<i>install_path</i> \bin\ps2afp.ps
/usr/lpp/psf/bin/ps2afpe.ps	<i>install_path</i> \bin\ps2afpe.ps
/usr/lpp/psf/bin/fontsave	<i>install_path</i> \bin\fontsave
/usr/lpp/psf/psfonts.map	<i>install_path</i> \bin\psfonts.map
/var/psf/psfonts	<i>install_path</i> \var\psfonts
/usr/lpp/psf/bin/sap2afp	<i>install_path</i> \bin\sap2afp
/usr/lpp/psf/tiff2afp/tiff2afp.cfg	<i>install_path</i> \tiff2afp\tiff2afp.cfg
/var/psf/podaccount.log	<i>install_path</i> \var\psf\podaccount.log

/var/psf/audit.log	install_path\var\psf\audit.log
/usr/lpp/psf/bin/listconv	install_path\bin\listconv.exe
/usr/lpp/psf/bin/uconv	install_path\bin\uconv.exe
/usr/lpp/psf/bin/xml2afp	install_path\bin\xml2afp
/usr/lpp/psf/bin/xml2pdf	install_path\bin\xml2pdf

Note: The **sap2afp** transform is available in a separately priced feature with InfoPrint Manager for AIX and InfoPrint Manager for Windows.

Objects

InfoPrint performs the management and printing or transmission of jobs by using **InfoPrint objects**.

Object classes

Table 1 lists the object classes that InfoPrint supports. The destination class is subdivided into logical and actual destinations.

Table 1. InfoPrint objects

Object Name	Purpose
Auxiliary sheet	Represents a sheet of paper, blank or otherwise, that precedes a job, separates copies in a job, or follows a job; or a user exit program that produces output that can be printed on an auxiliary sheet or logged.
Default document	Represents default attribute values for a document in a job. Also called <i>initial value document</i> .
Default job	Represents default attribute values for a job. Also called <i>initial value job</i> .
Destination (actual)	Represents the output device that InfoPrint uses to print or send the job. It is not the actual output device. It is a software representation of the features and capabilities of the printer or fax hardware device, or of an electronic mailing system. <i>A physical printer</i> is an actual destination that represents a printer device. A <i>fax destination</i> represents a fax device. An <i>email destination</i> represents an electronic mailing system.
Destination (logical)	Represents an abstract entity to which users submit jobs for printing or transmission. The logical destination provides restrictions and defaults for the job. It also verifies that associated actual destinations capable of handling the jobs exist. Once the logical destination verifies the job, InfoPrint sends it to an associated queue, from which it is routed to an actual destination. The term <i>logical printer</i> is used for logical destinations that route jobs to physical printers.
Document	Represents a grouping of data in a job: either a printable file or a resource that is not printable by itself, for example, a font.
Job	Represents one or more documents submitted together in one request.

Table 1. InfoPrint objects (continued)

Object Name	Purpose
Log	Represents a collection of messages or message segments added to a file for data collection purposes. InfoPrint uses two types of logs: error and trace.
Medium	Represents the physical material on which a job prints.
Queue	Manages a collection of jobs that are waiting to be printed or sent and jobs that have been retained after processing. A queue receives jobs from one or more logical destinations and schedules and sends the jobs to actual destinations.
Resource context	Contains directory path information that is used to locate resources needed for processing a job. Resources include fonts, overlays, form definitions, page segments, and page definitions.
Server	Manages and controls the validation, routing, notification, logging, scheduling, and printing or transmission of jobs. The server applies specified defaults to jobs, validates that the destinations on the network can process the jobs, schedules jobs from queues to actual destinations, directs jobs to the actual destination, reports errors, and reports job status.
Transform	Indicates how specific document formats sent to an associated actual destination are to be transformed before printing or storing.

Object name restrictions

These restrictions apply to naming InfoPrint objects:

- You can specify object names up to 255 characters, except for the names of PSF physical printers, fax destinations, and email destinations, which you must limit to eight characters or less.
- Characters allowed in object names include uppercase A through Z, lowercase a through z, digits 0 through 9, and the special characters hyphen or dash, - , period, . , and underscore, _ . Do not start an object name with a hyphen.
- Names for servers used with SAP systems should restrict their server names to nine characters.

Object attributes

This section has been moved to Chapter 3, “InfoPrint object attributes,” on page 471 as “Introducing object attributes” on page 474.

Commands

InfoPrint commands act on objects. They create, modify, and delete objects, and can also return status and other information about the InfoPrint objects.

Flags, command attributes, and arguments

The basic InfoPrint command syntax is:

command [-flag ...] [argument ...]

The *argument* targets the specific object on which the InfoPrint command operates. Most commands must include an *argument*. All commands can include one or more of:

Flags Flags consist of a dash, - , followed by a single character. Flags either substitute for command or object attributes or modify the way InfoPrint processes a command. For example, you can use the **-c** flag instead of the **class** command attribute. Some flags have values associated with them.

Use the **-x** and the **-X** flags to enter command attributes or object attributes on the command line or to read in a file containing those attributes at a specific point in the command.

Command attributes

Use command attributes to modify the action of the command and to define the object class on which the command operates. Most of the command attributes have an associated command flag that causes the same action. You cannot use a command flag in an attributes file. You can use the command attribute in an attributes file or on the command line using the **-X** flag or the **-x** flag respectively.

When you enter an attribute and value pair, you must specify the attribute followed by the equals sign, = , followed by the value; do not include spaces between these three items unless you enclose the items in quotation marks. For example, InfoPrint accepts both the *class=destination* and "*class = destination*" formats.

You must begin and end a string of multiple attribute-value pairs with double quotation marks, for example:

```
pdls -x "class=job requested-attributes=current-job-state" 10
```

Object attributes

Use object attributes to apply attribute values to the specified argument. You can use the object attribute in an attributes file or on the command line using the **-X** flag or the **-x** flag respectively.

When you enter an attribute and value pair, you must specify the attribute followed by the equals sign, = , followed by the value.

You must begin and end a string of multiple attribute-value pairs with double quotation marks, for example:

```
pdpr -x "document-format=ascii sides=2 plex=simplex" File1
```

Arguments

The argument specified in a command is the name of the object the command acts on. For servers, the argument is the name of the server. Servers contain all other objects. For some objects, you must specify the name of its server in the form *ServerName:ObjectName*. For other objects, the server name is optional. You must look at each command to determine the exact format allowed.

If you specify multiple arguments in one command, they must belong to the same object class.

Command output: headings and style

Some commands let you specify whether you want the output displayed in line style, column style, or document column style, and whether you want the output displayed with or without headings. Document column (**doccol**) style is a variant of column style used only for jobs. It is like column style except that the attributes

for the first document in the job are displayed on the same line as the job attributes, rather than on a separate line as in column style.

These examples show the same information (the **current-job-state** and **destination-name-requested** attributes for a job, plus the **document-format** and **copy-count** attributes for the first document in the job) in the six possible combinations of headings and style:

- Line style, with headings:

```
jw-srv:0524600000: current-job-state           = held
jw-srv:0524600000: destination-name-requested = jw-lp1
jw-srv:0524600000.1: document-format         = ascii
jw-srv:0524600000.1: copy-count              = 1
```

- Line style, without headings:

```
current-job-state           = held
destination-name-requested = jw-lp1
document-format             = ascii
copy-count                  = 1
```

- Column style, with headings:

```
Current  Destination
State    Requested
-----  -
held     jw-lp1
```

```
Format  Copies
-----  -
ascii   1
```

- Column style, without headings:

```
held jw-lp1
```

```
ascii 1
```

- Document column style, with headings:

```
Current  Destination
State    Requested   Format  Copies
-----  -
held     jw-lp1      ascii  1
```

- Document column style, without headings:

```
held jw-lp1 ascii 1
```

Tips for using commands

Understanding these topics can make your use of, and entry of, commands easier.

Wildcards

You can use the global character, an asterisk, `*`, to simplify broadcasting commands to all servers. For example, `STU*` sends the command to all servers whose names begin with the letters STU. When the global character is present in the *ServerName*, InfoPrint sends the command to each of the servers that match the specified criterion.

Depending on the shell you are using, you might need to enter control characters to keep the shell from interpreting the asterisk, `*`, before InfoPrint has a chance to operate on it.

Abbreviations

This publication shows attribute names and values in their complete form. Often, you can abbreviate attribute names and values by using the first letter of each word in the name or value. For example, you can use the abbreviation **s-m-s** for the **start-message-supported** attribute, **t** for the **true** value, and specify the attribute and value pair as **s-m-s=t**.

However, sometimes specifying only the first letter in each word is ambiguous, as for the attributes **job-owner** and **job-originator**. Here, specify enough of the name so that it is unique, as in **j-ow** and **j-or**. If the values are ambiguous, InfoPrint rejects the command and issues an error message. Use abbreviated attribute names and values as appropriate.

Attributes file

You might want to predefine specific attribute and value pairs in permanent files and access them when you need those specific values in a command. These files can contain command attributes, object attributes, or both.

Creating an attributes file:

- You can list command attributes and any initially settable or resettable object attributes in an attributes file, including the command attribute **attributes**. Thus, an attributes file can invoke other attributes files.

Note: If an attributes file calls itself, InfoPrint issues an error.

- You can only use a file that contains initially settable attributes with the **pdcreate** or **pdpr** commands. If you include an initially settable attribute in an attributes file and use the file with the **pdset** or **pdmod** commands, InfoPrint rejects the attribute and issues an error message.
- Attributes files must not contain any attributes without values.
- If you are using the Attributes file as an input file for the **pdpr** command with the **-Z** flag, all flags and values associated with the **-Z** flag must be entered on a separate line. For example,

```
-d destination-ld
-t testjob
myfile.afp
```
- When creating an attributes file, consider spelling out the complete attribute names and attribute values rather than using abbreviations.
- You can use spaces between the attribute name and the equals sign to align the equals sign and values. This makes your files easier to read and maintain.
- You can use comment lines in attributes files. The comment starts with a number sign, **#**, and ends at the end of line.

For example, an attributes file used to set two-sided printing and to request a specific printer model contains these lines:

```
# These are my document attributes
sides = 2
destination-models-requested = 4019 # 4019 printer only
```

Note: You can include a number sign, **#**, as part of an attribute value if you precede it immediately with a backslash, **\#**.

Using an attributes file:

InfoPrint provides both a command attribute and a flag to read an attributes file into a command.

Command attribute:

-x "attributes=AttributesFileName"

You use the **-x** flag to specify the command attribute **attributes**. This attribute designates and causes InfoPrint to read and use an attributes file, which contains attribute and value pairs (one or more per line), at the current point in the command. Specifying this attribute is equivalent to using the **-X** flag.

Flag:

-X AttributesFileName

This causes InfoPrint to read and use the designated attributes file containing attribute and value pairs at the current point in the command.

These two examples are equivalent:

```
pdset -X AttrFileAD1.X Serv2-pp
pdset -x "attributes=AttrFileAD1.X" Serv2-pp
```

Using the command attribute **attributes** or the **-X** flag to designate and read an attributes file has the same effect as specifying multiple attribute and value pairs using the **-x** flag. These attributes require the same syntax as those used with the **-x** flag. For example, both of the previous examples reference this attributes file:

```
# Actual Destination Attributes File
# AttrFileAD1.X
document-formats-supported =ascii ditroff modca-p
maximum-copies-supported   =3
document-types-supported   =printable overlay page-segment
printer-memory             =32
```

It is equivalent to this command:

```
pdset -x "document-formats-supported=ascii ditroff modca-p
maximum-copies-supported=3 document-types-supported=printable
overlay page-segment printer-memory=32" Serv2-pp
```

The **-X** and **-x** flags are additive so that InfoPrint uses all attributes and values. If you specify the same object attribute more than once in a command with multiple uses of the **-x** and **-X** command flags or the **attributes** command attribute, or a combination of them, the value read last takes precedence.

Locating an Attributes file for InfoPrint Manager for AIX:

If you do not specify a full path name for the attributes file, InfoPrint uses the path name from the environment variable **PDPATH** to locate the attributes file. If you do not define **PDPATH** or it contains a null string, InfoPrint looks in your current working directory for the attributes file.

For example, if **PDPATH** contained **/usr/smith** this command:

```
pdpr -X my_attributes.X File1
```

would read the file **/usr/smith/my_attributes.X** to obtain the attribute and values.

Note: For InfoPrint Manager for Windows, you must specify the full path.

Administrative utilities

InfoPrint administrative utilities perform such tasks as setting up a minimum InfoPrint configuration, starting servers, and displaying information about InfoPrint messages.

Daemon utilities for InfoPrint Manager for AIX

InfoPrint has some special utilities for starting daemons. Daemons are often called by the same name as the utility that starts them. For example, the daemon that receives data from MVS Download is called the **mvsprsd** daemon, or simply **mvsprsd**.

Transform commands

InfoPrint transform commands convert another data stream to the AFP™ data stream. You can allow InfoPrint to invoke these transforms automatically, or you can invoke them yourself.

Some transforms use options instead of flags. Like flags, options begin with a dash, - , and modify the way InfoPrint processes the transform. Unlike flags, options can have more than one character following the dash.

Environment variables for InfoPrint Manager for AIX

InfoPrint and AIX environment variables affect the way that InfoPrint processes commands and utilities. These environment variables are summarized in Chapter 4, “InfoPrint environment variables,” on page 975.

Windows Services for InfoPrint Manager for Windows

InfoPrint Manager for Windows uses Windows Services for many functions, including the Infoprint Server, Notification, IPP, and MVS download.

Chapter 2. InfoPrint Manager Tools

This section describes these InfoPrint Manager Tools:

- “InfoPrint commands”
- “The -o flag for AIX print commands and the InfoPrint Manager lprafp command” on page 140
- “InfoPrint administrative utilities” on page 175
- “Daemon utilities for InfoPrint Manager for AIX” on page 224
- “InfoPrint transform commands” on page 245

Note: To make sure accessibility when viewing this book online, the syntax diagrams have been converted to graphic notation, which is also referred to as railroad track diagrams. For an explanation of graphic notation, see “Reading Syntax Diagrams” on page 9.

InfoPrint commands

This section describes these InfoPrint commands:

Command Name	AIX	Windows
“listconv command: list all the default converters in CCSID” on page 22	AIX	Windows
“lprafp command: submits remote jobs in InfoPrint Manager for AIX” on page 24	AIX	N/A
“mkfntmap command: maps PostScript fonts” on page 26	AIX	Windows
“pdaccount command: collect accounting information for a specific time period” on page 28	AIX	Windows
“pdclean command: removes all jobs from the specified object” on page 31	AIX	Windows
“pdcreate command: creates InfoPrint objects” on page 34	AIX	Windows
“pddelete command: deletes InfoPrint objects” on page 41	AIX	Windows
“pddisable command: stops destinations from accepting jobs and logs from logging” on page 50	AIX	Windows
“pdenable command: enables destinations to accept jobs and logs to log” on page 54	AIX	Windows

“pddeviceop command: perform device operation on device associated with specified actual destination” on page 47	AIX	Windows
“pdls command: lists selected attribute values” on page 58	AIX	Windows
“pdmod command: modifies attributes of submitted print jobs” on page 74	AIX	Windows
“pdpause command: pauses jobs, actual destinations, servers, or queues” on page 80	AIX	Windows
“pdpr command: submits jobs” on page 90	AIX	Windows
“pdpromote command: advances a job to the top of a queue” on page 99	AIX	Windows
“pdq command: queries job status” on page 102	AIX	Windows
“pdreorder command: reassigns jobs” on page 108	AIX	Windows
“pdresubmit command: resubmits jobs” on page 111	AIX	Windows
“pdresume command: enables paused objects to resume operation” on page 116	AIX	Windows
“pdrm command: removes jobs” on page 120	AIX	Windows
“pdset command: defines attribute values” on page 122	AIX	Windows
“pdshutdown command: stops servers or actual destinations” on page 129	AIX	Windows
“pdspace command: backspaces or forward spaces a printer” on page 135	AIX	Windows
“uconv command: convert encoding of character set” on page 139	AIX	Windows

listconv command: list all the default converters in CCSID

Syntax

listconv command

```

listconv [-l] [-a] [-c]

```

Description

Use the **listconv** command to generate a list of all the default converters in CCSID (coded character set identifier).

Flags

You can use these flags with the **listconv** command.

```
|-----|  
|  -l  |  
|-----|
```

Provides a complete list of all the default converters in CCSID.

```
|-----|  
|  -a  |  
|-----|
```

Provides a list of all the aliases of the converters in CCSID.

```
|-----|  
|  -c  |  
|-----|
```

Provides a CCSID of the converter.

Example

To generate a list of all the default converters in CCSID, enter:

```
listconv -l
```

listconv returns information similar to this:

```
UTF-8 Platform: UCNV_IBM CCSID: 1208 with 7 aliases:  
UTF-8 ibm-1208 ibm-1209 ibm-5304 ibm-5305 cp1208 cp65001
```

```
-----
```

```
UTF-16 Platform: UCNV_IBM with 4 aliases:  
UTF-16 ISO-10646-UCS-2 csUnicode ucs-2
```

```
-----
```

```
UTF-16BE Platform: UCNV_IBM CCSID: 1200 with 9 aliases:  
UTF-16BE UTF16_BigEndian x-utf-16be ibm-1200 ibm-1201 ibm-5297 ibm-13488 ibm-17584 cp1201
```

```
-----
```

```
UTF-16LE Platform: UCNV_IBM CCSID: 1202 with 7 aliases:  
UTF-16LE UTF16_LittleEndian x-utf-16le ibm-1202 ibm-13490 ibm-17586 cp1200
```

```
.  
. .  
. .
```

```
-----
```

```
ibm-1153_P100-1999,swap1fn1 Platform: UCNV_IBM CCSID: 1153 with 3 aliases:  
ibm-1153_P100-1999,swap1fn1 ibm-1153,swap1fn1 ibm-1153-s390
```

```
-----
```

```
ibm-12712_P100-1998,swap1fn1 Platform: UCNV_IBM CCSID: 12712 with 3 aliases:  
ibm-12712_P100-1998,swap1fn1 ibm-12712,swap1fn1 ibm-12712-s390
```

```

-----
ibm-16804_X110-1999,swap1fn1 Platform: UCNV_IBM CCSID: 16804 with 3 aliases:
ibm-16804_X110-1999,swap1fn1 ibm-16804,swap1fn1 ibm-16804-s390
-----

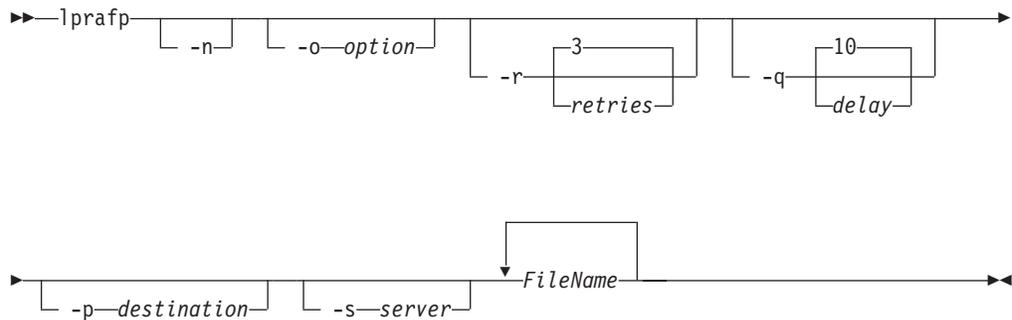
ebcdic-xml-us Platform: UCNV_UNKNOWN with 1 aliases:
ebcdic-xml-us

```

lprafp command: submits remote jobs in InfoPrint Manager for AIX

Syntax

lprafp command



Description

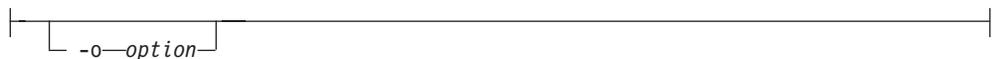
The **lprafp** command, when compiled on a UNIX® client system, allows UNIX users operating on AIX 3.2.5 or higher, non-AIX systems, or non-RS/6000® systems to pass **-o** flag keywords to InfoPrint for use in printing or sending remote jobs. The **-o** flags that are interpreted by InfoPrint can be sent with the remote job.

You can submit a job using a shell script called **LPR**. When you invoke **LPR** with the **-A** flag, **LPR** invokes the **lprafp** command. **lprafp** passes **-o** keywords to InfoPrint. If you invoke the **LPR** shell script without the **-A** flag, **LPR** invokes the operating system's standard print command.

Flags



Indicates that only error messages display when the output is processed. If you do not specify this flag, you receive status information about the job sent to the destination system.



- Indicates InfoPrint options, for example:
-oformdef=F1SAMPLE

You must specify all related **-o** options together in a job (parameter name, then value, without other flags in between) if they are to be passed correctly to InfoPrint Manager.

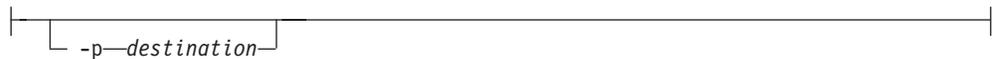
See “The **-o** flag for AIX print commands and the InfoPrint Manager **lprafp** command” on page 140 for descriptions of the **-o** options.



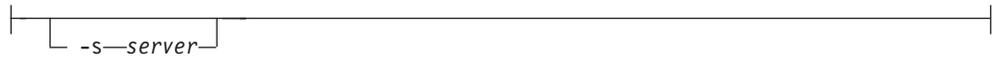
Indicates how many times the **lprafp** program tries to connect with the TCP/IP line printer daemon (**lpd**) on the destination system. This flag defaults to three retries.



Indicates the retry delay in seconds. This flag defaults to ten seconds.



Indicates the destination name on the server. This flag defaults to the value of the **LPR_PRINTER** environment variable.



Specifies the destination server. This flag defaults to the value of the **LPR_SERVER** environment variable.

Arguments

Use the argument value to identify the specific files you want to submit for printing or transmission. If you specify multiple objects, separate the object names with spaces.

You can use these arguments with the **lprafp** command:



Indicates the files that are to be printed or sent. You can specify global file characters in this argument.

Examples

- **Submitting a remote print job**

To submit two copies of `/etc/motd` to the logical printer named `laser` on server `alexandria` for printing with an end sheet that shows this came from `bobjones` in department `j12`, enter:

```
LPR -A -ocopies=2 -ode=j12 -odi=bobjones -otrailer=yes -s alexandria \  
-p laser /etc/motd
```

- **Submitting a remote email job**

To send the file memo1 to the logical destination mailbox on server alexandria, enter:

```
LPR -A -s alexandria -p mailbox memo1
```

Note: The default document associated with mailbox must specify the **email-to-address** attribute.

- **Setting environment variables**

To set up the environment so that subsequent print requests are sent to the logical destination named alexe-lp on server alexandria, enter:

```
export LPR_PRINTER=alexe-lp export LPR_SERVER=alexandria
```

Note: The *server name* can be in dotted address format; for example 9.99.9.99.

To test that your environment variables have been set correctly, enter:

```
LPR -A /etc/motd
```

Files

/usr/lpp/psf/utils/lpr/Makefile
Generates the executable program

/usr/lpp/psf/utils/lpr/getopts.c
Source code

/usr/lpp/psf/utils/lpr/getopts.h
Source code header file

/usr/lpp/psf/utils/lpr/LPR
Shell script for print command

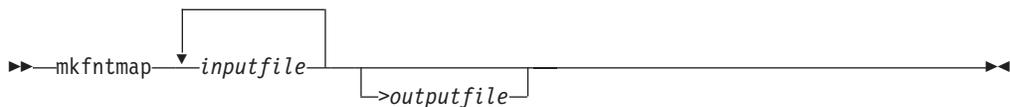
/usr/lpp/psf/utils/lpr/lprafp.c
Source code

/usr/lpp/psf/utils/lpr/lprafp.h
Source code header file

mkfntmap command: maps PostScript fonts

Syntax

mkfntmap command



Description

The **mkfntmap** command creates a font mapping file that contains a list of the PostScript® Type 1 fonts specified in the *inputfiles* parameter of the command and their locations.

InfoPrint Manager for AIX includes the **/usr/lpp/psf/ps/psfonts.map** file.

InfoPrint Manager for Windows includes the *install_path\ps\fonts.map* file.

The font map file maps the AFP outline fonts to the directory in which they were installed. If you have additional PostScript fonts or you add new PostScript fonts, use the **mkfntmap** command to create a font mapping file for the new fonts after they are installed.

If you will be using the additional fonts frequently, you should add the fonts to the **preload.ps** file in the */usr/lpp/psf/ps* directory for InfoPrint Manager for AIX.

If you will be using the additional fonts frequently, you should add the fonts to the **preload.ps** file in the *install_path\ps* directory for InfoPrint Manager for Windows.

The fonts you specify in the **preload.ps** file load before transform processing begins, improving the performance of the PostScript transform.

Note: With InfoPrint Manager for AIX, the Courier font must exist in at least one of your font mapping files. It is included in the font mapping file, */usr/lpp/psf/ps/psfonts.map* for InfoPrint Manager for AIX and the *install_path\ps\fonts.map* for InfoPrint Manager for Windows.

Arguments

The argument value identifies the specific object to which the command applies.

The valid argument values for the **mkfntmap** command are:

 *inputfile*

Specifies the name of the file or files that contain PostScript Type 1 fonts. At least one input file is required, although you can list more than one.

 *outputfile*

Specifies the name of the font mapping file that contains the font mapping for the PostScript Type 1 fonts that were specified in the *inputfiles*. When the output file is created, it can be specified in the **ps2afpd** daemon and **ps2afp** command configuration files. You also can specify the *outputfile* name from the command line with the **-F** flag of the **ps2afp** command. If you do not specify an *outputfile* name, InfoPrint writes the results to standard output.

Examples

- To create a font mapping file of all binary fonts named *atm**, which have the extension *.pfb*, and call it *atmfonts.map*, enter:

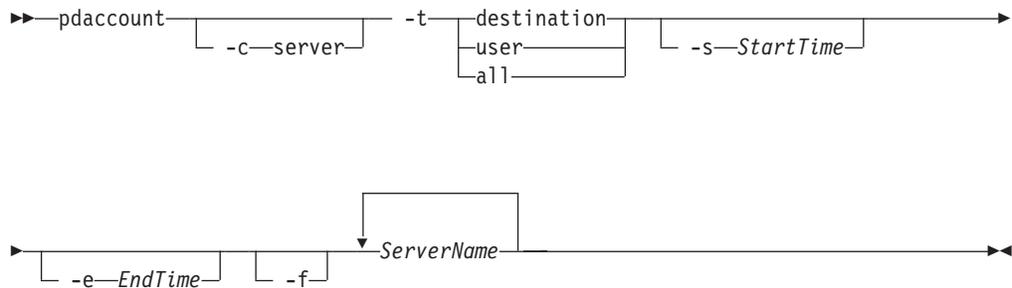
```
mkfntmap atm*.pfb > atmfonts.map
```
- To create a font mapping file of all fonts named *cou**, and call it *courier.map*, enter:

```
mkfntmap cou* > courier.map
```

pdaccount command: collect accounting information for a specific time period

Syntax

pdaccount command



Description

Use the **pdaccount** administrative command to collect summary accounting information for a specified time period in a comma delimited format about jobs processed by 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. You can request summary information or all available information. The summary information includes:

- Total pages printed by a destination or a user for a specified time period
- Total octets printed by a destination or a user for a specified time period

You can also request complete records for a specified time period.

When the **log-accounting-data** actual destination or server attributes are set to **true**, InfoPrint Manager creates an accounting log for each destination and stores the information in the server's `accounting.logs` subdirectory. When the accounting logs are active, InfoPrint Manager records the following information:

- **actual destination name** (up to 255 characters)
- **job owner** (up to 255 characters)
- **global job-id** without *ServerName*
- **submission-time** (GMT format)
- **submission-time** (date in server's displayable locale and time zone)
- **submission-time** (time in server's displayable locale and time zone)
- **completion-time** (GMT format)
- **completion-time** (date in server's displayable locale and time zone)
- **completion-time** (time in server's displayable locale and time zone)
- **pages-completed**
- **octets-completed**
- **data stream** (first document only)
- **job name** (up to 255 characters)

For actual destinations that are unable to get pages completed from the printer, the information is obtained from the **job-page-count** attribute (which can be set by the user), or in some cases, InfoPrint Manager determines the information by analyzing the data stream.

Note: Because of the way that InfoPrint Manager pauses and cancels jobs, the totals for the pages completed could be inaccurate.

Flags

You can use these flags with the **pdaccount** command:

```
|-----|  
|  -c—server—|
```

Specifies the object class for the **pdaccount** command. Server is the only class supported for the **pdaccount** command.

```
| -t—destination—|  
|   |—user—|  
|   |—all—|
```

- Specifies the type of account information that you want collected:

destination Summary information by destination
user Summary information by job owner
all All records as logged

Attention: Requesting information for **all** accounting records can consume a lot of the server's memory since all the data is read into memory to be sent to you. If you have a lot of data to retrieve, you should consider requesting it for smaller time periods and concatenating the returned data.

For example, to retrieve all the accounting records for a one month period, you could issue four **pdaccount** commands like this:

```
- pdaccount -t all -s "00:00:00 03/01/00" -e "00:00:00 03/08/00" Server  
A >March1.accting.data  
- pdaccount -t all -s "00:00:00 03/08/00" -e "00:00:00 03/15/00" Server  
A >March2.accting.data  
- pdaccount -t all -s "00:00:00 03/15/00" -e "00:00:00 03/22/00" Server  
A >March3.accting.data  
- pdaccount -t all -s "00:00:00 03/22/00" -e "00:00:00 03/31/00" Server  
A >March4.accting.data
```

```
|-----|  
|  -s—StartTime—|
```

Specifies the oldest job-completion time for records to include. If this flag is not specified, defaults to the first record in the accounting log.

```
|-----|  
|  -e—EndTime—|
```

Specifies the latest job-completion time for records to include. If this flag is not specified, defaults to the last record in the accounting log.

```
|-----|  
|  -f—|
```

- Places the results in a file in the server's directory. If specified, the results of the **pdaccount** command are filed in the server's directory where the command is processed. The file is named **accounting.summary.timestamp**, where timestamp is the time the request was performed. If **-f** is not specified, the results are returned to standard out or can be redirected by the user.

With InfoPrint Manager for AIX, the file is placed in `/var/pd/servername`.

With InfoPrint Manager for Windows, the file is placed in `install_path\var\pd`.

Argument

Use the argument value to identify the specific server or servers that you want to collect accounting information for.

You can use these argument values with the **pdaccount** command:



Specifies the server that you want to collect accounting information for.

Examples

Summary information for destinations on Server A

To request summary accounting information for the destinations on server A for the period starting at 8 AM on 12/20/99 and ending at 8 AM on 12/24/99, enter this command:

```
pdaccount -t destination -s "08:00:00 12/20/99" -e "08:00:00 12/24/99" A
```

The information returned is similar to:

```
Destination, Pages Completed, Octets Completed
Printer1,12997,1989787763
Printer2,2455,17676836
Printer3,86673,189808083
```

Summary information for users on all the servers

To request summary accounting information for users on all the servers for the period starting at 8 AM on 12/20/99 and ending at 8 AM on 12/24/99, enter this command:

```
pdaccount -t user -s "08:00:00 12/20/99" -e "08:00:00 12/24/99" *:
```

The information returned is similar to:

```
Owner, Pages Completed, Octets Completed
gnelson@info1.penn.infoprint.com,1347,1987763
hlava@ips1.penn.infoprint.com,2455,12237676836
root@pumbaa.penn.infoprint.com,86673,189808083
```

All accounting information for destinations on Servers B and C

To request all the data (or raw data) for the destinations on servers B and C for the period starting at 8 AM on 12/20/99 and ending at 8 AM on 12/24/99, enter this command:

```
pdaccount -t all -s "08:00:00 12/20/99" -e "08:00:00 12/24/99" B C
```

The command returns the complete accounting log records for the time period collected from all the accounting logs on the requested servers in no particular sorted order.

Attention: Requesting information for **all** accounting records can consume a lot of the server's memory since all the data is read into memory to be sent to you. If you have a lot of data to retrieve, you should consider requesting it for smaller time periods and concatenating the returned data.

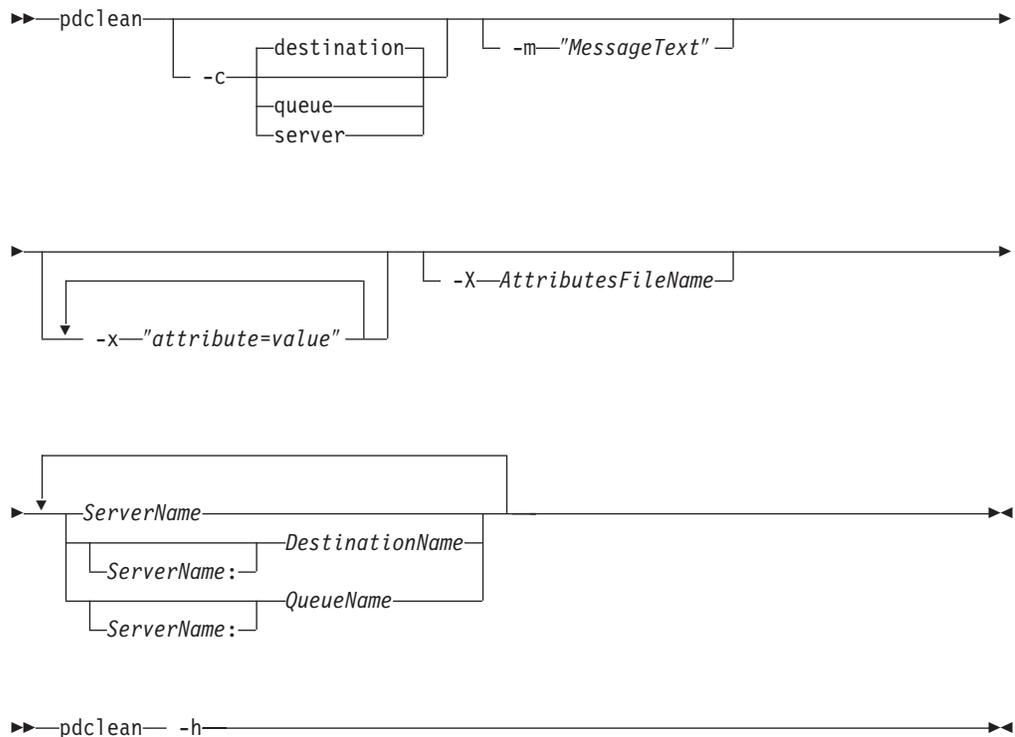
For example, to retrieve all the accounting records for a one month period, you could issue four **pdaccount** commands like this:

- `pdaccount -t all -s "00:00:00 03/01/00" -e "00:00:00 03/08/00" Server A >March1.accting.data`
- `pdaccount -t all -s "00:00:00 03/08/00" -e "00:00:00 03/15/00" Server A >March2.accting.data`
- `pdaccount -t all -s "00:00:00 03/15/00" -e "00:00:00 03/22/00" Server A >March3.accting.data`
- `pdaccount -t all -s "00:00:00 03/22/00" -e "00:00:00 03/31/00" Server A >March4.accting.data`

pdclean command: removes all jobs from the specified object

Syntax

pdclean command



Description

Use the **pdclean** administrative command to remove all jobs from the specified servers, logical destinations, queues, or actual destinations. If you are removing

jobs from a server, InfoPrint ignores any **job-retention-period** or **job-retain-until** attribute values. For all other conditions, InfoPrint honors the **job-retention-period** or **job-retain-until** value. If you are removing jobs from a logical destination, InfoPrint removes all jobs from the queue to which the logical destination submitted the jobs. If you are removing jobs from a queue, InfoPrint removes all jobs that the queue contains, regardless of which logical destination or destinations submitted the jobs to the queue.

InfoPrint removes processing jobs, if the actual destination supports this.

InfoPrint Manager issues a confirmation message before cleaning the object, unless your **PD_CONFIRM_DELETE** environment variable has a value of **no**.

Flags

You can use these flags with the **pdclean** command:



- Specifies the object class you want for this command. In the valid classes, **destination** is a logical or actual destination.

Using this flag is equivalent to specifying the command attribute **operation-class**.



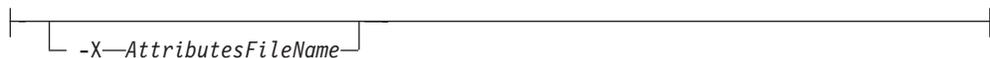
- Specifies the message you want associated with the specified destination, queue, or server. You can use this message to indicate the reason why you are cleaning the destination, queue, or server, or any other appropriate comments.

Using this flag is equivalent to specifying the command attribute **message**.

You can list this message by specifying **requested-attributes=message** with the **pdls** command.



A single attribute string, consisting of one or more attribute-value pairs.



- Specifies the name of a file containing attribute and value pairs you want InfoPrint to insert at the current point in the command.

Using this flag is equivalent to specifying the command attribute **attributes**.



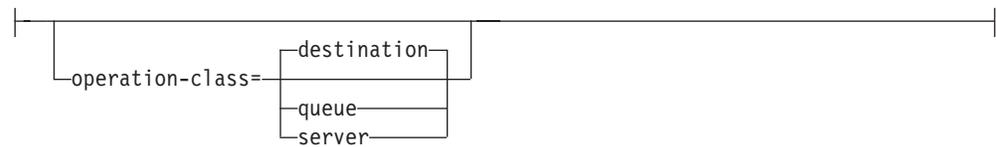
Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a **-x** "*attribute=value ...*" string or in an attributes file designated with the **-X** *AttributesFileName* flag.



Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.



Specifies the destination, queue, or server you want for this command. In the valid classes, **destination** is a logical or actual destination.

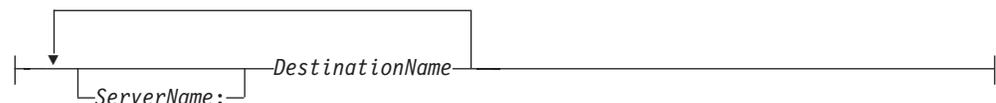


- Specifies the message you want associated with the destination, queue, or server. You can use this message to indicate the reason why you are cleaning the destination, queue, or server, or any other appropriate comments. You can list this message by specifying **requested-attributes=message** with the **pdls** command.

Arguments

Use the argument value to specify the destination, queue, or server that you want InfoPrint to clean. If you specify multiple objects, all must be of the same object class and you must separate the object names with spaces.

You can use these arguments with the **pdclean** command:



- Specifies which destinations you want cleaned of jobs. Cleaning an actual destination removes only those jobs that InfoPrint has assigned to that actual destination. Cleaning a logical destination removes all jobs submitted through that logical destination that InfoPrint has not yet completed. InfoPrint removes those jobs from the queue associated with that logical destination. InfoPrint removes any jobs currently processing if the actual destination supports this.



- Specifies which queues you want cleaned of jobs.
Cleaning a queue deletes all jobs that are in that queue. InfoPrint removes any jobs currently processing if the actual destination supports this.



- Specifies which servers you want cleaned of jobs.
Cleaning a server deletes all jobs submitted to any of the logical destinations, or assigned to the actual destinations, residing in that server, including any retained jobs. InfoPrint removes any jobs currently processing if the actual destination supports this.

Examples

Clean a logical destination

To clean logical destination Myserv-1p of all jobs, enter the command:

```
pdclean Myserv-1p
```

Clean a server

To clean server DServ1, enter the command:

```
pdclean -c server DServ1
```

Clean an actual destination

To clean destination Mserv-pp of all jobs and to leave a message, enter the command:

```
pdclean -m "Destination Mserv-pp is down for repairs" Super1:PhysPrt2
```

Suggested reading

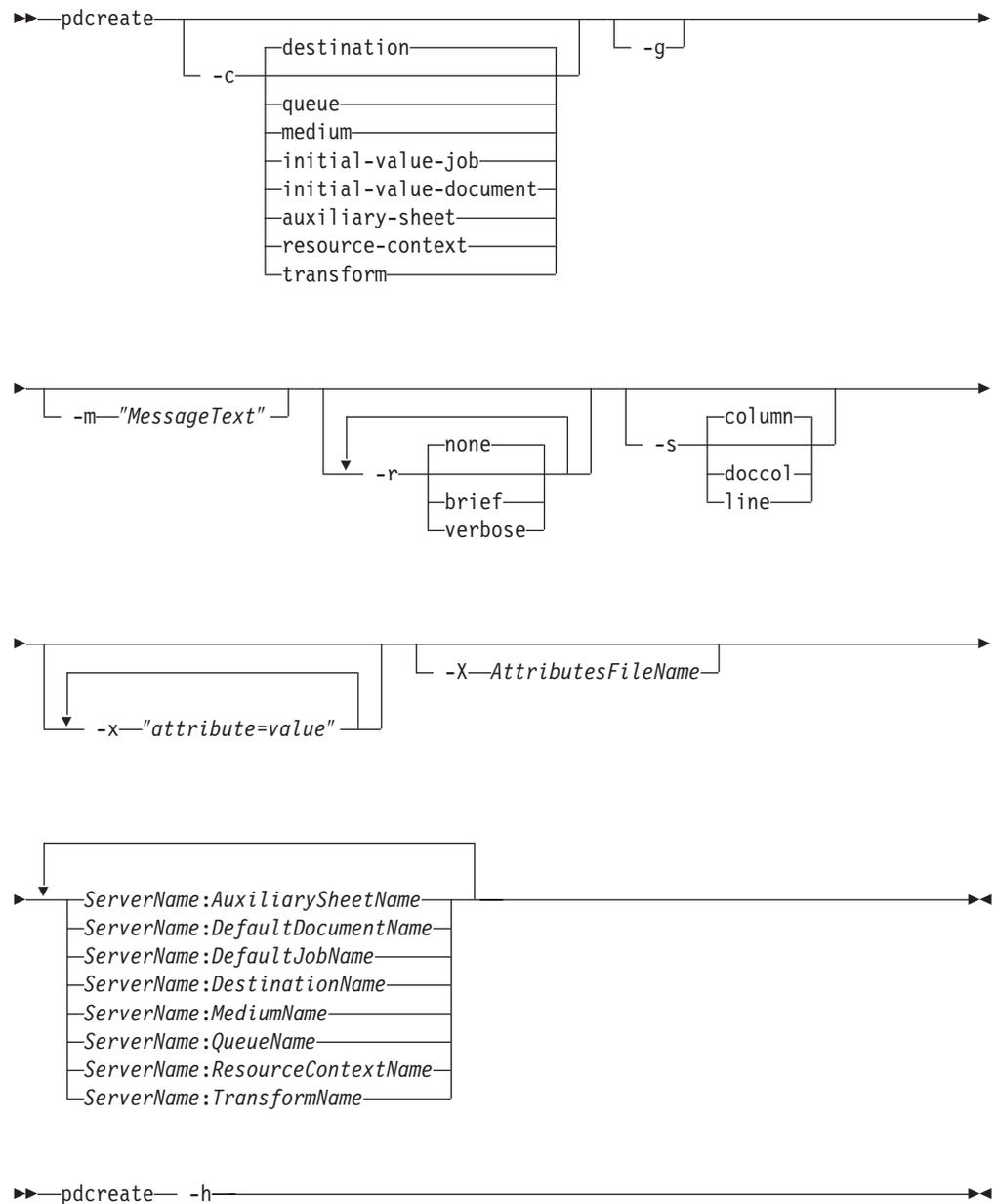
For more information about:

- Attributes file, see "Attributes file" on page 18

pdcreate command: creates InfoPrint objects

Syntax

pdcreate command



Description

Use the **pdcreate** administrative command to create InfoPrint objects (except servers, logs, documents and jobs) and to set their attributes to specific values.

You can specify any initially settable or resettable attribute for an object with the **pdcreate** command. You can specify an initially settable attribute only when you create an object.

Appendix A, "Attribute-to-object listing," on page 1003, provides a listing of all attributes by object class and Chapter 3, "InfoPrint object attributes," on page 471, contains descriptions for each attribute by object.

Note: InfoPrint creates servers and logs when the server starts. InfoPrint creates documents and jobs when users submit files for printing or transmission with the **pdpr** command.

You can use the **pdcreate** command to create objects for these object classes:

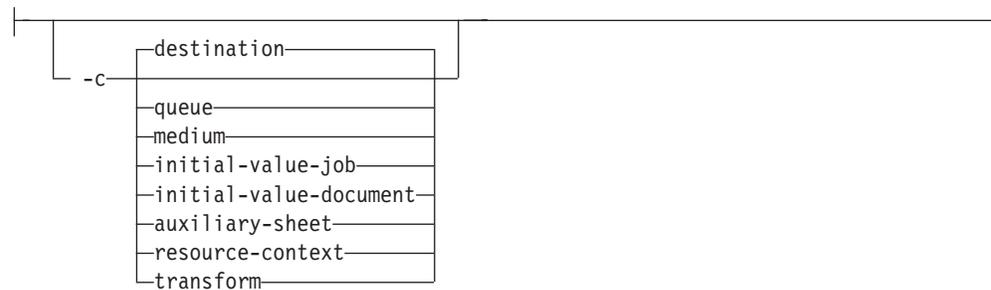
- **destination** (logical and actual)
- **queue**
- **initial-value-job**
- **initial-value-document**
- **medium**
- **auxiliary-sheet**
- **resource-context**
- **transform**

When you create a destination, it remains in the disabled state and InfoPrint cannot accept any jobs for it until you enable the destination. You must enter the **pdenable** command to enable the destinations.

An object you create with the **pdcreate** command still exists even if the server that contains it terminates normally (shutdown) or abnormally. A logical destination or queue returns to its previous state when its server restarts; an actual destination tries to return to its previous state when its server restarts.

Flags

You can use these flags with the **pdcreate** command:

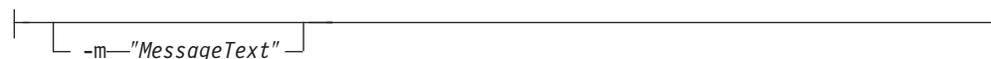


- Specifies the object class you want for this command. You can only specify one class per command invocation.

Using this flag is equivalent to specifying the command attribute **operation-class**.



Turns off headings. Using this flag is equivalent to specifying the command attribute **headings=false**



- Specifies the message that you want associated with the object you are creating. You can indicate the reason for creating the object or to provide any other comments.

You can list this message by specifying **requested-attributes=message** with the **pdls** command. Using this flag is equivalent to specifying the command attribute **message**.



- Specifies the attribute values you want InfoPrint to display for the specified object.

none Displays no attributes.
brief Displays a small subset of important attributes for each object.
verbose Displays a larger subset of important attributes for each object.

Using this flag is equivalent to specifying the command attribute **requested-attributes**.



- When combined with the **-r** flag or the **requested-attributes** command attribute, specifies the format in which you want InfoPrint to display attribute information.

column Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.
doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.
line Each attribute is displayed on a separate line.

Using this flag is equivalent to specifying the command attribute **style**.



A single attribute string, consisting of one or more attribute-value pairs.



Specifies the name of a file containing attribute and value pairs InfoPrint inserts at the current point in the command. Using this flag is equivalent to specifying the command attribute **attributes**.

Command attributes

You can specify these attributes in a `-x "attribute=value ..."` string or in an attributes file designated with the `-X AttributesFileName` flag.

`attributes=AttributesFileName`

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

`operation-class=`

- destination
- queue
- medium
- initial-value-job
- initial-value-document
- auxiliary-sheet
- resource-context
- transform

Specifies the object class you want for this command. You can only specify one class per command invocation.

`headings=`

- true
- false

Specifies whether you want headings displayed in the output.

`message="MessageText"`

- Specifies the message that you want associated with the object you are creating. You can indicate the reason for creating the object or provide other comments. You can list this message by specifying **requested-attributes=message** with the **pdl**s command.

`requested-attributes=`

- none
- brief
- verbose

- Specifies which output attributes you want InfoPrint to display.

none Displays no attributes.
brief Displays a small subset of important attributes for each object.
verbose Displays a larger subset of important attributes for each object.



- Specifies the presentation format you want for the displayed output.

column Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

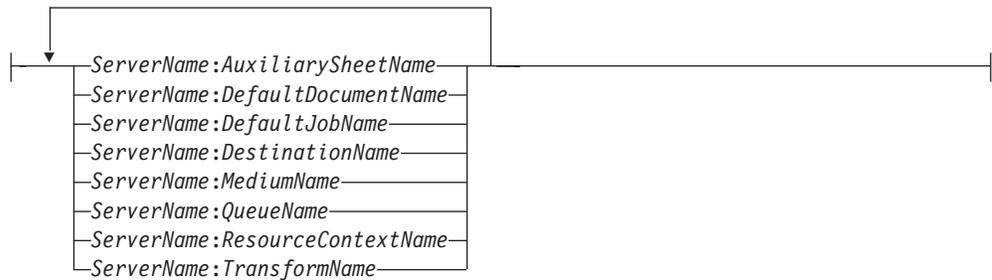
line Each attribute is displayed on a separate line.

Arguments

Use the argument values to identify the specific object you are creating. If you specify multiple objects, separate the object names with spaces.

Note: Regardless of which object you create, you must use *ServerName:* with the **pdcreate** command.

You can use these arguments with the **pdcreate** command:



Examples

Create a queue

To create the queue *Serv1-p3-queue*, on the server *Serv1*, enter the command:

```
pdcreate -c queue Serv1:Serv1-p3-queue
```

Create a logical destination

To create the logical destination *Destination3-Serv1* in the server *Serv1* and specify the queue you want associated with that destination, enter the command:

```
pdcreate -x "associated-queue=Serv1-p3-queue" Serv1:Destination3-Serv1
```

Create an actual destination

To create the PSF TCP/IP-attached actual destination *Destination3* in the server *Serv1* and specify the queue you want associated with that destination, enter the command:

```
pdcreate -x "destination-realization=actual
associated-queue=Serv1-p3-queue attachment-type=tcip
destination-model=InfoPrint4000-ID5-ID6
destination-tcpip-internet-address=martha.infoprint.com
destination-tcpip-port-number=5001" Serv1:Destination3
```

Create a default document

To create the default document LP3ivd, enter the command:

For InfoPrint Manager for AIX:

```
pdcreate -c initial-value-document -m "Created 04/01/1997"
-x "copy-count=1 document-format=line-data page-definition=MyPageDef
resource-context-page-definition=/usr/lpp/psf/myplib sides=1
descriptor='IVD for LogPrt3'" Serv1:LP3ivd
```

For InfoPrint Manager for Windows:

```
pdcreate -c initial-value-document -m "Created 04/01/1997"
-x "copy-count=1 document-format=line-data page-definition=MyPageDef
resource-context-page-definition=install_path\psf\myplib sides=1
descriptor='IVD for LogPrt3'" Serv1:LP3ivd
```

Create a default job

To create the default job MyJobTemplate using the attributes specified in the attributes file named MyJobAttributes.X, enter the command:

```
pdcreate -c initial-value-job -X MyJobAttributes.X
server3:MyJobTemplate
```

Create a medium

To create a medium representing a transparency with the identifier my-clear-medium in the server Serv1, enter the command:

```
pdcreate -c medium -x "descriptor='letter size, common transparency'
medium-type=transparency medium-color=transparent medium-size=letter
medium-sides=1 medium-dimensions=215.9:355.6" Serv1:my-clear-medium
```

Create a medium in all active servers

To create the medium A4-blue in all active servers, enter the command:

```
pdcreate -c medium \*:A4-blue
```

Create queue and its notification profile

To create a notification profile for Serv1-p3-queue in server Serv1, enter the command:

```
pdcreate -c queue -x "notification-profile={event-identifiers=job-modified
queue-state-changed delivery-method=message
event-comment='This is a modification of job or status event'
delivery-address=dave@cowboy locale=En_US}" Serv1:Serv1-p3-queue
```

Create a PSF TCP/IP printer with smart defaults

To create a PSF TCP/IP printer with smart defaults, enter:

```
pdcreate -x "dest-real=actual assoc-queue=muffins-q attach-type=tcip
dest-tcpip-inter-addr=9.17.162.56" muffins:ip21
```

Retrieve an archived object

To create a logical destination from an archived file, enter:

```
pdcreate -c destination -X logdest.archive ServerName:logicaldestname
```

Suggested reading in hardcopy

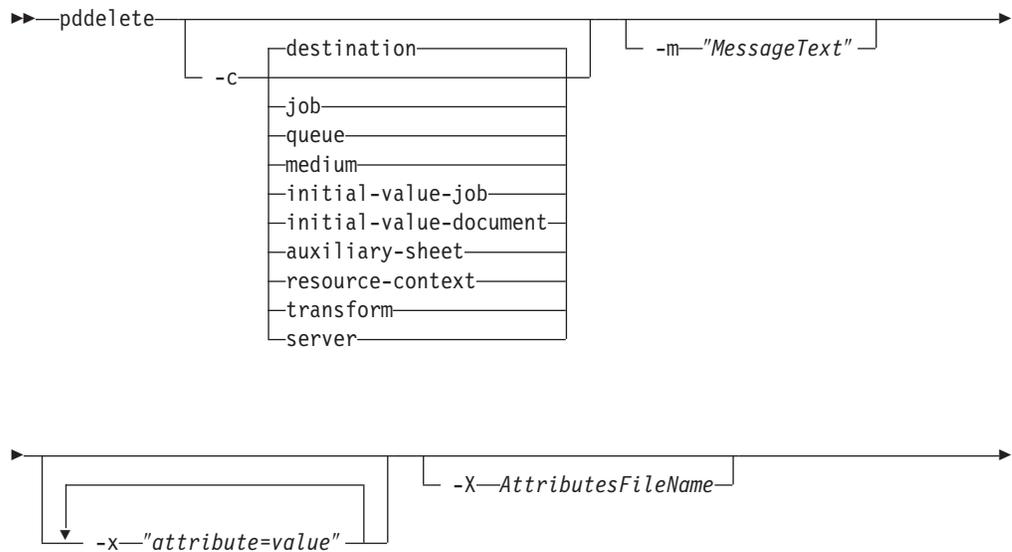
For information about:

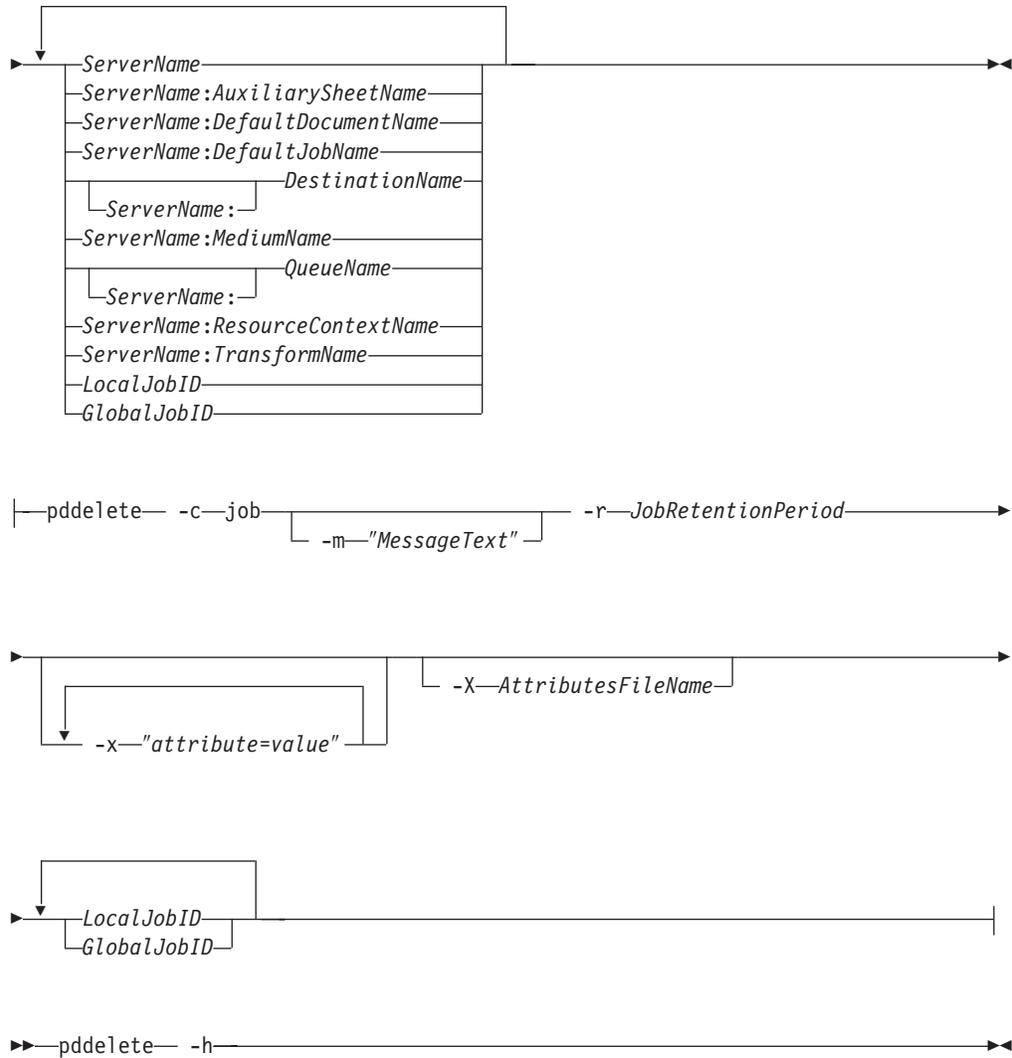
- Attributes file, see “Attributes file” on page 18
- Headings and style, see “Command output: headings and style” on page 16
- Attributes for InfoPrint objects, see Chapter 3, “InfoPrint object attributes,” on page 471.
- For introductory information about object attributes and their use with commands, see “Introducing object attributes” on page 474, which includes information about non-settable, initially settable, and resettable attributes.

pddelete command: deletes InfoPrint objects

Syntax

pddelete command





Description

Use the **pdelete** administrative command to delete InfoPrint objects.

InfoPrint Manager issues a confirmation message before deleting objects, unless your `PD_CONFIRM_DELETE` environment variable is set to **no**.

InfoPrint does not delete jobs with a non-zero value for the **job-retain-until** or **job-retention-period** attribute (either previously set or set with this command) until the retention deadline arrives or the retention period expires.

Flags

You can use these flags with the **pdelete** command:

Using this flag is equivalent to specifying the command attribute **attributes**.

— -h —

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a **-x "attribute=value ..."** string or in an attributes file designated with the **-X AttributesFileName** flag.

— attributes=AttributesFileName —

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

— operation-class= —

destination
job
queue
medium
initial-value-job
initial-value-document
auxiliary-sheet
resource-context
transform
server

Specifies the object class you want for this command.

— message="MessageText" —

- Specifies the message you want to associate with the object you want to delete. You can use this message to indicate the reason for deleting the object or to provide any other comments.

If the command operates on a job with a non-zero value for the **job-retention-period** or **job-retain-until** attribute (either previously set or set with this command), you can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command. Otherwise, InfoPrint deletes this message with the object and you cannot retrieve it.

If you do not specify the **message** attribute, the message stored with the object remains unchanged and InfoPrint deletes it as previously described.

Arguments

Use the argument value to identify the specific object you want to delete. If you specify multiple objects, separate the object names with spaces.

You can use these arguments with the **pddelete** command:



You must remove all jobs contained in this server before you can delete it.



You cannot delete this auxiliary sheet if any of the actual destinations that reference it are enabled.



You cannot delete this default document if any of the logical destinations that reference it are enabled.



You cannot delete this default job if any of the logical destinations that reference it are enabled.



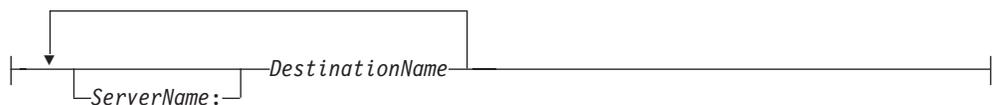
- InfoPrint deletes a job based on the specified value in its **job-retention-period** or **job-retain-until** attribute.

Notes:

1. You can identify your own jobs by either the local job ID or the global job ID. You must identify other users' jobs by the global job ID.



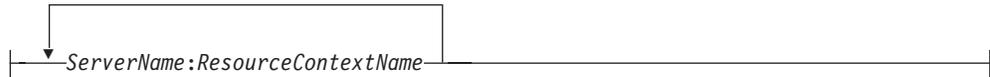
You cannot delete this medium if any of the actual destinations that reference it are enabled.



You must remove all the jobs from an actual destination before you can delete it.



You must disable all logical destinations associated with the queue before you can delete the queue. You must remove all jobs (including paused jobs) from the queue before you can delete the queue.



You cannot delete this resource context if any of the actual destinations that reference it are enabled.



There is no restriction.

Examples

Delete a job using a local ID

To delete job 5, enter the command:

```
pdelete -c job 5
```

Delete logical destinations

To delete logical destinations `srA-1p11` and `srA-1p15`, enter the command:

```
pdelete srA-1p11 srA-1p15
```

Delete a default job

To delete the default `IVJ_2` from the server `DivServ2`, enter the command:

```
pdelete -c initial-value-job DivServ2:IVJ_2
```

Delete a server

To delete the server `Serv1`, enter the command:

```
pdelete -c server Serv1
```

Suggested reading

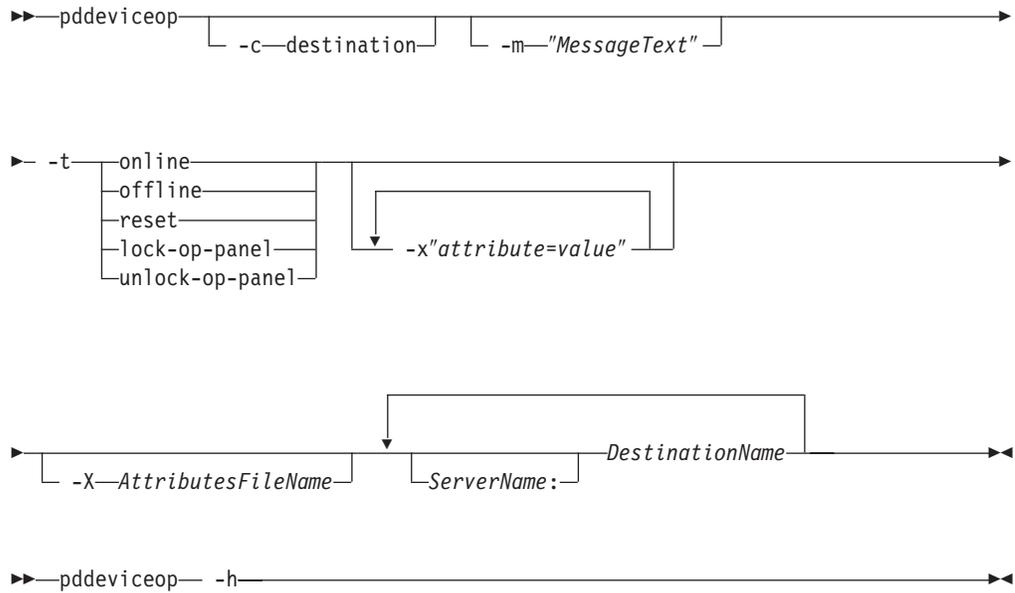
For information about:

- Attributes file, see “Attributes file” on page 18

pddeviceop command: perform device operation on device associated with specified actual destination

Syntax

pddeviceop command

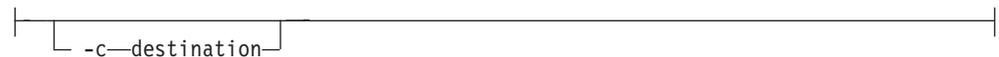


Description

Use the **pddeviceop** administrative command to perform an operation on the printer device that the specified actual destination represents. You must have write permission to the specified actual destination. For the operation to work, the actual destination must have the **snmp-active** specified as **true**, it must support this type of operation, and it must have the **snmp-write-community-name** actual destination attribute set to the correct value. For more information, see "snmp-write-community-name" on page 669.

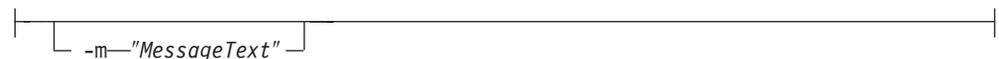
Flags

You can use these flags with the **pddeviceop** command:



Specifies the operation class of **destination** that represents an actual destination. This is the only allowed class.

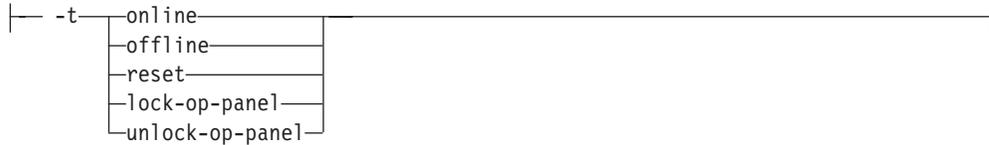
Using this flag is equivalent to specifying the command attribute **operation-class**.



- Specifies the message you want associated with the destination. You can use this message to describe the device operation you are performing on the destination or to provide any other comments.

If you do not specify the **-m** flag, the message already stored with the object remains unchanged.

You can list this message by specifying **requested-attributes=message** with the **pdlis** command. Using this flag is equivalent to specifying the command attribute **message**.



- Specifies the type of device operation you want performed:

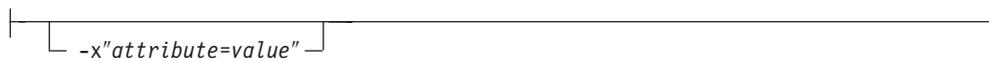
offline

online

reset

lock-op-panel

unlock-op-panel



Consists of a single attribute string, containing one or more attribute-value pairs.



Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command. Using this flag is equivalent to specifying the command attribute **attributes**.



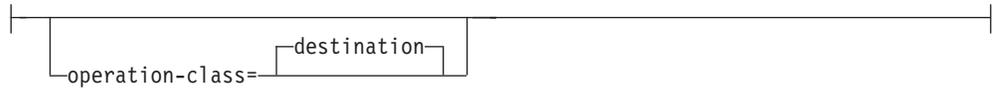
Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a **-x "attribute=value ..."** string or in an attributes file designated with the **-X AttributesFileName** flag.

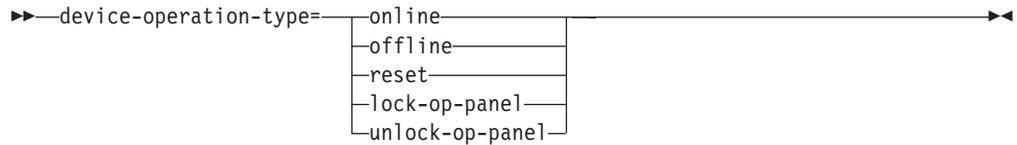


Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.



DEFAULT=destination

Specifies the object class of **destination**, which represents a PSF physical printer. This is the only allowed class.



- Specifies the type of device operation you want performed:

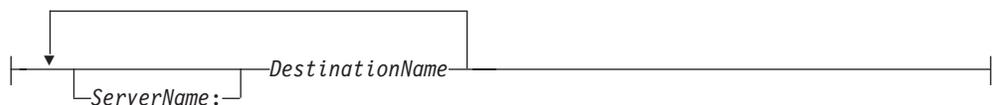
- offline**
- online**
- reset**
- lock-op-panel**
- unlock-op-panel**



- Specifies the message you want to associate with the destination. You can use this message to describe the device operation you are performing on the destination or to provide any other comments.
If you do not specify this attribute, the message already stored with the object remains unchanged.
You can list this message by specifying **requested-attributes=message** with the **pdl** command.

Argument

Use the argument value to identify the specific actual destination you want to work with:



Examples

Lock the operation panel on a device

To lock the operation panel on the device associated with actual destination prt5-ad, enter the command:

```
pddeviceop -t lock-op-panel prt5-ad
```

Reset the printer

To reset the *ip21* printer, enter:

```
pddeviceop -t reset ip21
```

Turn the printer offline

To turn the *ip21* printer offline, enter:

```
pddeviceop -t offline ip21
```

Turn the printer online

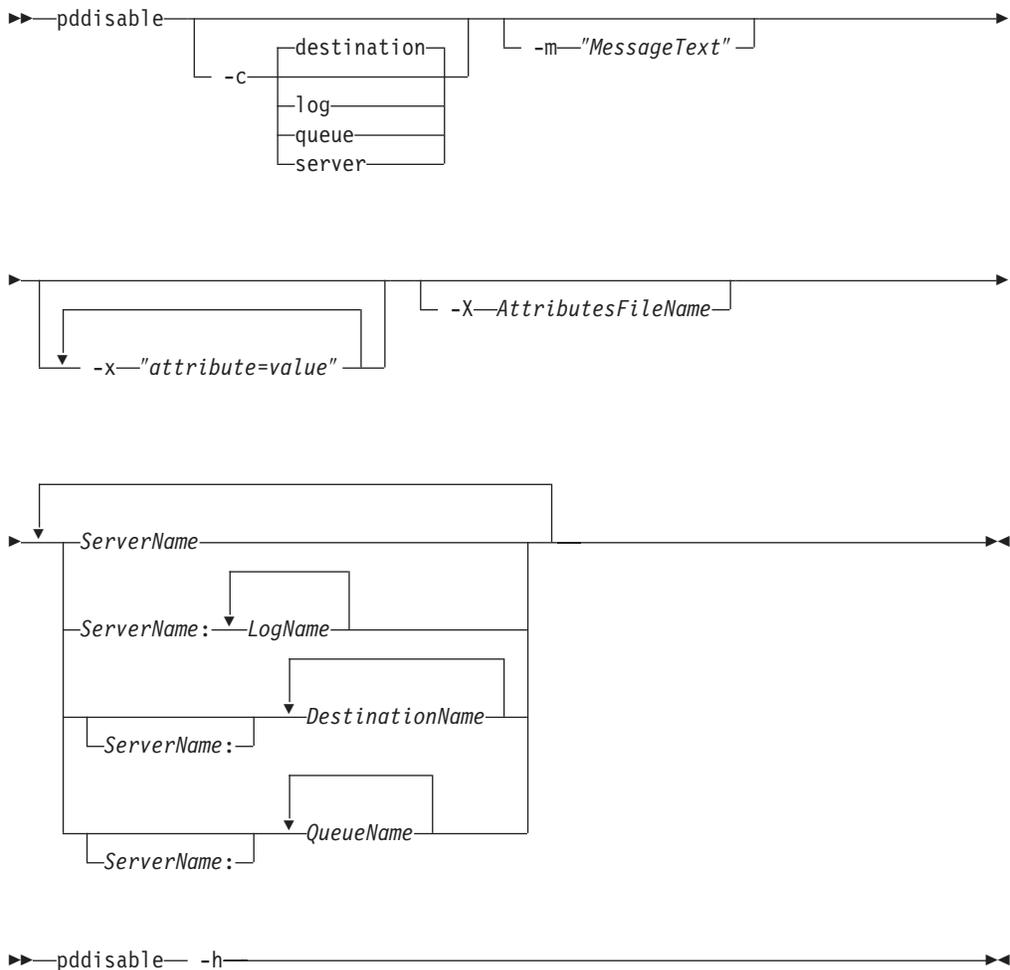
To turn the *ip21* printer online, enter:

```
pddeviceop -t online ip21
```

pddisable command: stops destinations from accepting jobs and logs from logging

Syntax

pddisable command



Description

Use the **pddisable** administrative command to stop actual destinations or logical destinations from accepting jobs, or to stop logs from logging data.

When you disable a destination, it does not accept jobs submitted with **pdpr** or **pdresubmit** commands. The destination still accepts other commands. All previously submitted jobs and currently processing jobs continue unaffected.

Notes:

1. Use the **pdenable** command to enable a destination to accept jobs again and to enable the logging function of a log again.
2. Use the **pddisable** and **pdenable** commands to prevent or allow input to the object. Use the **pdpause** and **pdresume** commands to prevent or allow output from the object.

Flags

You can use these flags with the **pddisable** command:



- Specifies the object class you want for this command. In the valid classes, **queue** disables all associated logical destinations, **destination** is for a logical or actual destination, and **server** disables all destinations in the server.

Using this flag is equivalent to specifying the command attribute **operation-class**.

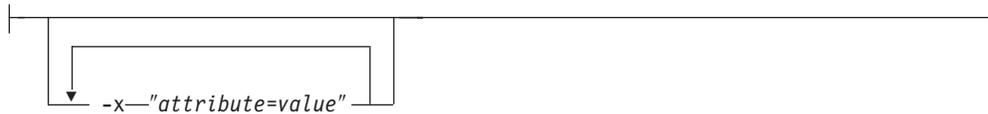


- Specifies the message you want associated with the destination, log, queue, or server. You can use this message to indicate the reason for disabling the object or to provide any other comments.

If you do not specify the **-m** flag, the message already stored with the object remains unchanged.

When you issue a command against a server, InfoPrint propagates the message to the **message** attribute of the destinations residing in the server. InfoPrint does not change the server **message** attribute. When you issue a command against a queue, InfoPrint propagates the message to the **message** attribute of the logical destinations associated with the queue. InfoPrint does not change the queue **message** attribute.

You can list this message by specifying **requested-attributes=message** with the **pdls** command. Using this flag is equivalent to specifying the command attribute **message**.



A single attribute string, consisting of one or more attribute-value pairs.



- Specifies the name of a file containing attribute and value pairs you want inserted at the current point in the command.
Using this flag is equivalent to specifying the command attribute **attributes**.



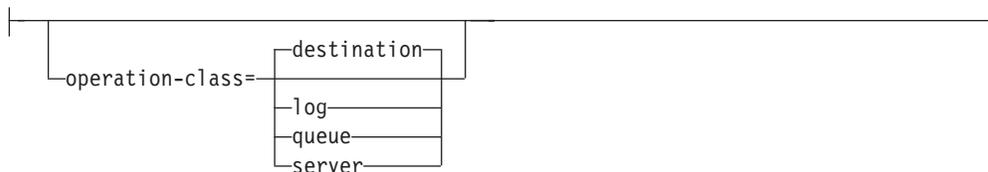
Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a `-x "attribute=value ..."` string or in an attributes file designated with the `-X AttributesFileName` flag.



Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.



Specifies the object class you want for this command. In the valid classes, **queue** disables all associated logical destinations, **destination** is for a logical or actual destination, and **server** disables all destinations in the server.



- Specifies the message you want to associate with the destination, log, queue, or server. You can use this message to indicate the reason for disabling the object or to provide any other comments.

If you do not specify this attribute, the message already stored with the object remains unchanged.

When you issue a command against a server, InfoPrint propagates the message to the **message** attribute of the destinations residing in the server. InfoPrint does not change the server **message** attribute.

When you issue a command against a queue, InfoPrint propagates the message to the **message** attribute of the logical destinations associated with the queue. InfoPrint does not change the queue **message** attribute.

You can list this message by specifying **requested-attributes=message** with the **pdl** command.

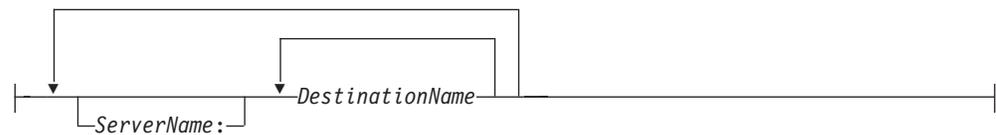
Arguments

Use the argument value to identify the specific object you want to disable. If you specify multiple objects, separate the object names with spaces.

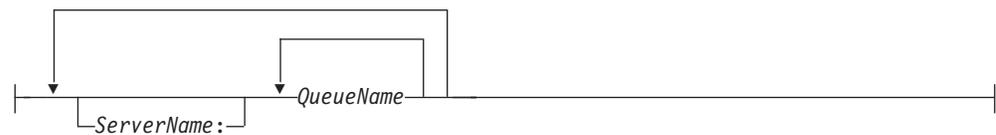
You can use these arguments with the **pddisable** command:



Specifies the log you want to disable. Disabling a log stops it from logging data.



Specifies the destination you want to disable. Disabling a destination stops it from accepting print or transmission requests. Any jobs currently assigned to an actual destination continue processing.



Examples

Disable a logical destination

To disable logical destination `Serv1-lp` on server `Serv1`, enter:

```
pddisable Serv1-lp
```

InfoPrint does not require the server name.

Disable an actual destination

To disable actual destination `Serv1-pp` on server `Serv1`, enter:

```
pddisable Serv1-pp
```

InfoPrint does not require the server name.

Disable all destinations in a server

To disable the logical and actual destinations contained in the server ServG1 and assign a message to the destinations, enter:

```
pddisable -c server -m "Unavailable due to testing" ServG1
```

Disable all logical destinations associated with a queue

To disable the logical destinations associated with the queue production-q1 on server servera, enter:

```
pddisable -c queue production-q1
```

InfoPrint does not require the server name.

Suggested reading

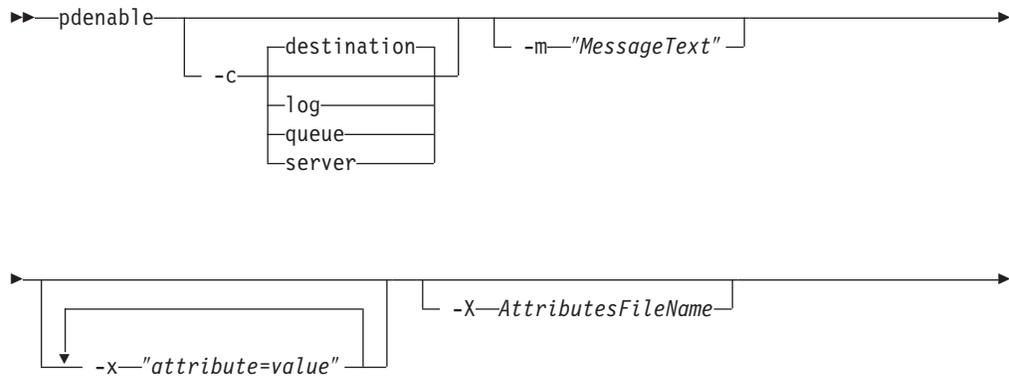
For information about:

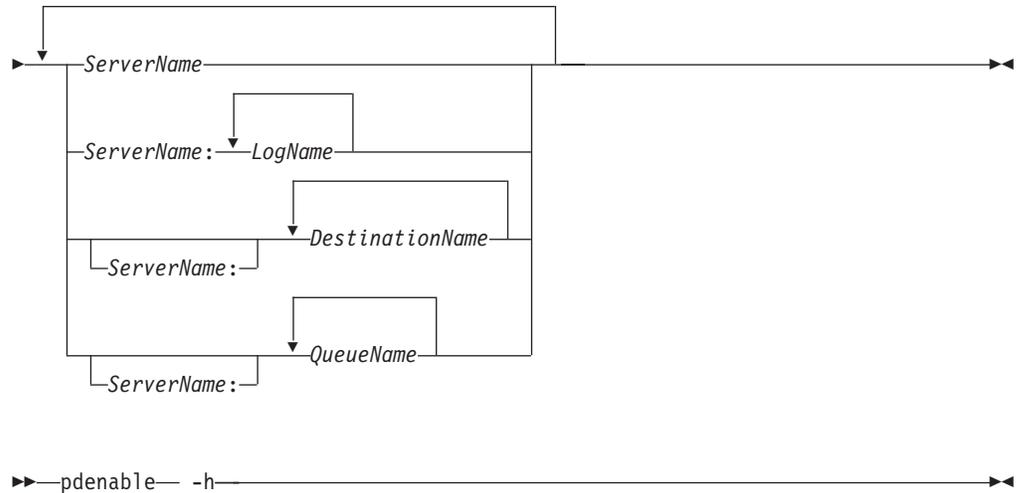
- Attributes file, see "Attributes file" on page 18

pdenable command: enables destinations to accept jobs and logs to log

Syntax

pdenable command





Description

Use the **pdenable** administrative command to enable the logging function of logs or to enable logical destinations or actual destinations to accept jobs.

Notes:

1. Use the **pdenable** and **pddisable** commands to allow or prevent input to an object. Use the **pdresume** and **pdpause** commands to allow or prevent output from the object.
2. To stop destinations from accepting jobs, use the **pddisable** command.
3. To stop logs from logging data, use the **pddisable** command.

Flags

You can use these flags with the **pdenable** command:



- Specifies the object class you want for this command. In the valid classes, **queue** enables all associated logical destinations, **destination** is for a logical or actual destination, and **server** enables all destinations in that server.

Using this flag is equivalent to specifying the command attribute **operation-class**.



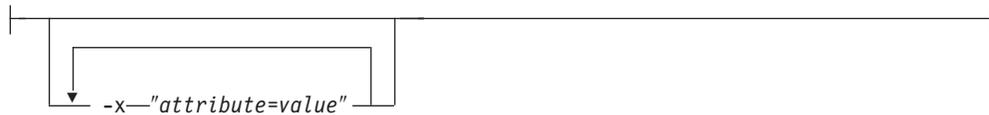
- Specifies the message you want to associate with the destination, log, queue, or server you want to enable. You can use this message to indicate the reason for enabling the object or to provide any other comments. If you do not specify the **-m** flag, the message already stored with the destination, log, queue, or server remains unchanged.

When you enter the command against a server, InfoPrint propagates the message to the **message** attribute of the destinations residing in that server. InfoPrint does not change the server **message** attribute.

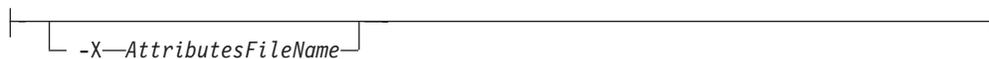
When you enter the command against a queue, InfoPrint propagates the message to the **message** attribute of the logical destinations associated with the queue. InfoPrint does not change the queue **message** attribute.

You can list this message by specifying **requested-attributes=message** with the **pdls** command.

Using this flag is equivalent to specifying the command attribute **message**.



A single attribute string, consisting of one more attribute-value pairs.



- Specifies the name of a file containing attribute and value pairs you want InfoPrint to insert at the current point in the command.
Using this flag is equivalent to specifying the command attribute **attributes**.



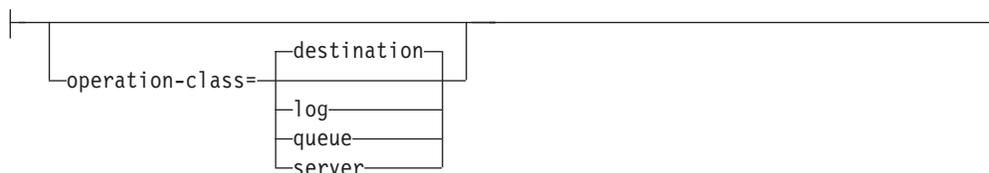
Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

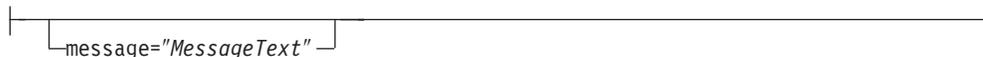
You can specify these attributes in a **-x "attribute=value ..."** string or in an attributes file designated with the **-X AttributesFileName** flag.



Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.



Specifies the object class you want for this command. In the valid classes, **queue** enables all associated logical destinations; **destination** is for a logical or actual destination; and **server** enables all destinations in that server.



- Specifies the message you want to associate with the destination, log, queue, or server you want to enable. You can use this message to indicate the reason for enabling the object or to provide any other comments. If you do not specify the **-m** flag, the message already stored with the destination, log, queue, or server remains unchanged.

When you enter the command against a server, InfoPrint propagates the message to the **message** attribute of the destinations residing in that server. InfoPrint does not change the server **message** attribute.

When you enter the command against a queue, InfoPrint propagates the message to the **message** attribute of the logical destinations associated with the queue. InfoPrint does not change the queue **message** attribute.

You can list this message by specifying **requested-attributes=message** with the **pdl**s command.

Using this flag is equivalent to specifying the command attribute **message**.

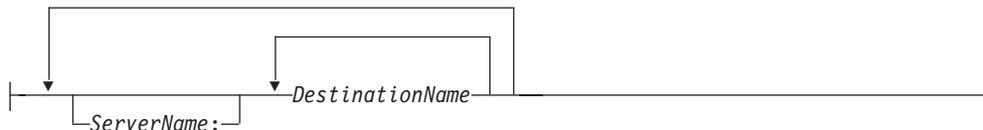
Arguments

Use the argument value to identify the specific object you want to enable. If you specify multiple objects, separate the object names with spaces.

You can use these arguments with the **pdenable** command:

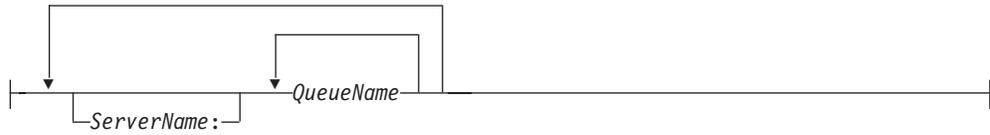


Specifies the log you want to enable. Enabling a log allows it to begin accepting input (logging).



- Specifies the destination you want to enable. When first created, destinations are in the disabled state. You cannot enable destinations unless you associate them with an existing queue. Any other objects referenced by the destination must also exist. These are:
 - For logical destinations
 - Default jobs
 - Default documents
 - For actual destinations
 - Media
 - Auxiliary-sheets

- Resource-contexts



Specifies the queue you want to enable. When you enter the **pdenable** command against a queue, InfoPrint tries to enable all of its associated logical destinations.

Examples

Enable logical destinations

To enable logical destinations `Serv1-lp` and `draft-lp` on server `Serv1`, enter:

```
pdenable Serv1-lp draft-lp
```

Enable all destinations in a server

To enable all logical and actual destinations contained in the server `ServG1`, enter the command:

```
pdenable -c server ServG1
```

Suggested reading

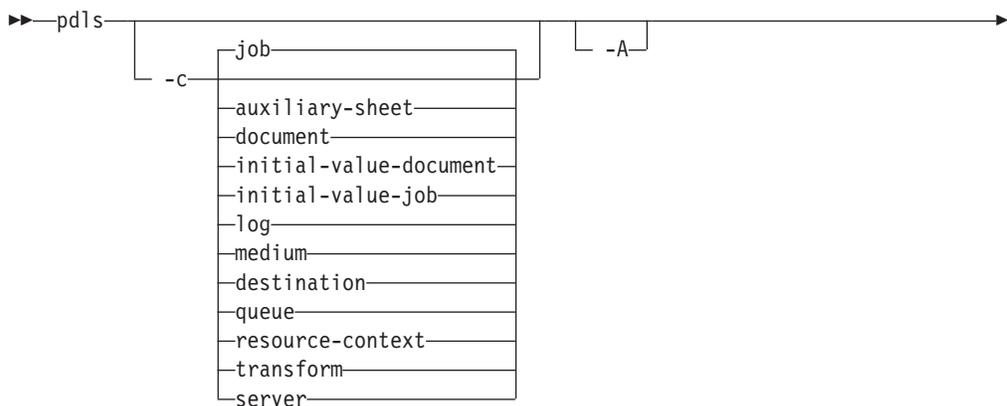
For information about:

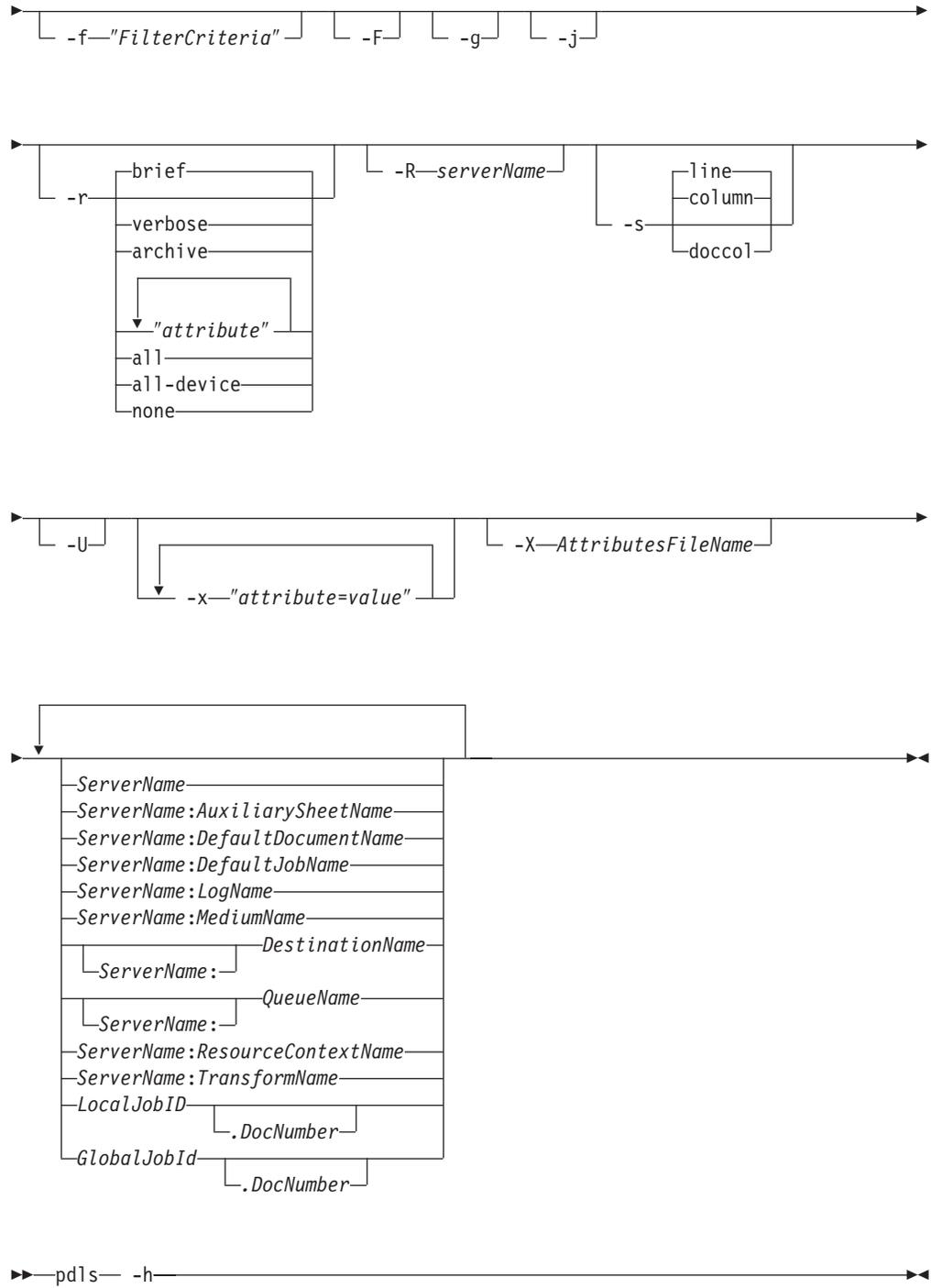
- Attributes file, see “Attributes file” on page 18

pdls command: lists selected attribute values

Syntax

pdls command





Description

Use the **pdls** command to request that InfoPrint display selected attribute values for one or more jobs or other InfoPrint objects.

- By default, InfoPrint creates a filter when listing jobs that only lets you see your jobs. The jobs have a predefined value for the filter that is equal to the job attribute **user-name**; this value is your login identity when you submit a job. You can add to this filter to further restrict the jobs for which InfoPrint returns information.

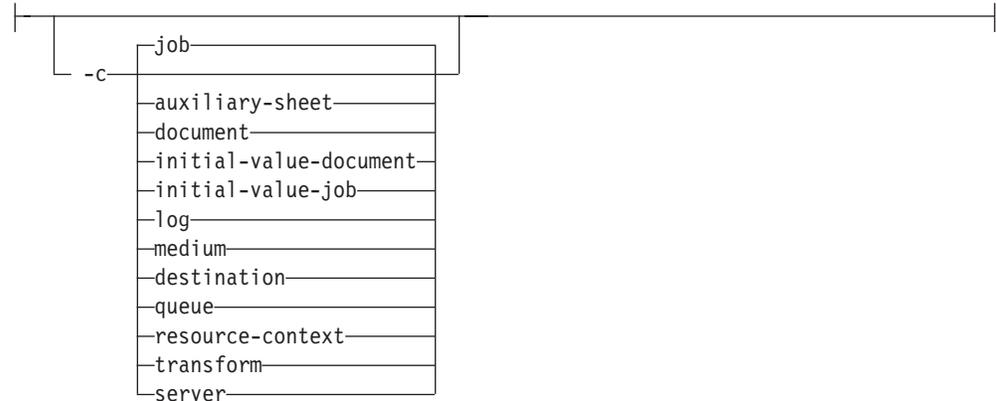
- You must suppress the default filter by using the **-U** flag or turn off all filtering with the **-F** flag to see more than your own jobs.
- If you only specify the *ServerName* as the command argument, InfoPrint displays the attribute values for all objects belonging to the object class you specify.
- In general, you can only list the attributes of the object class you are requesting. However, you can view attributes of initial-value-jobs (IVJs) and initial-value-documents (IVDs) associated with a logical destination through the logical destination.
- The **all-device** option on the **-r** flag can only be used with actual destinations that have **snmp-active** specified as **true**.
- If SNMP is enabled on an actual destination, you can also be able to query information directly from the device associated with the actual destination by querying for device attributes. See “Setting up SNMP” in the *InfoPrint Manager for AIX: Procedures* or *InfoPrint Manager for Windows: Procedures*.
- The contents and the order of the information returned from queries of device attributes can vary between queries and between devices.
- The results returned from queries of device attributes will not be translated.
- You can list the attribute values for specific jobs by using the local ID or the global ID. You must have submitted the job to use the local ID.

Notes:

1. There is a situation when you must use the global ID. If the InfoPrint communications daemon responsible for the mapping of local ID-to-global ID values is not available, this can prevent InfoPrint from tying the local ID to the global ID. If this situation exists, you must use the global ID, the name of the server, or an argument specification using global characters.
2. There is a possible situation that can occur if your administrator has set the **PDIDTABLE** environment variable to a low value, for example 10. You submit a series of jobs during a short time span such that the number of jobs you have in process is larger than the value set, say 14. You will have two jobs with the local IDs of 1, 2, 3, and 4. However, InfoPrint no longer associates the first four jobs with a local ID because those local IDs now belong to the 11th, 12th, 13th, and 14th jobs. Therefore, you must use the global ID to take action on any of the first four jobs.
3. If the **PDIDTABLE** environment variable is set to 0, jobs cannot be referenced by the local IDs.

Flags

You can use these flags with the **pdl**s command:



- Specifies the object class of the object whose attributes you want to list. All object classes are valid.

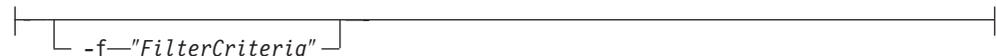
Using this flag is equivalent to specifying the command attribute **operation-class**.



Use this flag to display information about a logical destination and its associated actual destinations. Associated actual destinations are defined as those listed on a logical destination's **initial-value-job's actual-destinations-requested** attribute, or if no actual destinations are listed, then all the actual destinations associated with the same queue as the logical destination.

If the target of the request is an actual destination or other object class, the flag is ignored.

Using this flag is equivalent to specifying the command attribute **associated-actual-destinations**.



- Specifies the filter criteria you want to use in selecting from the candidate objects. Among the candidate objects, InfoPrint returns only those matching the filter expression. See the command attribute **filter**, for filter expression details.

Using this flag is equivalent to specifying the command attribute **filter**.



Turns off all filtering, both specified and default. See the **-U** flag for suppressing only the default.

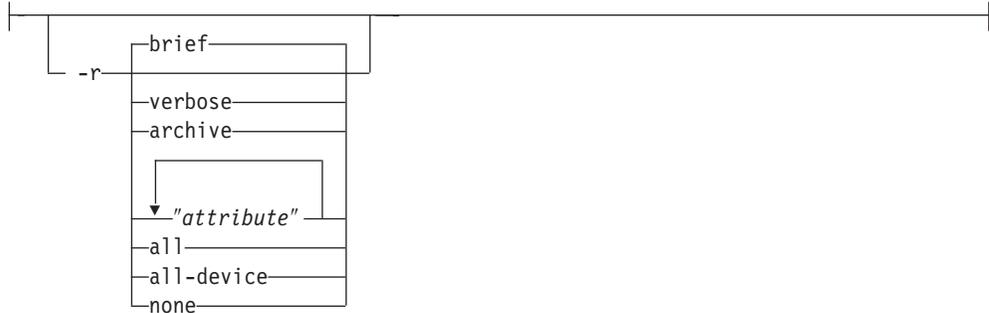


- Turns off headings.

Using this flag is equivalent to specifying the command attribute **headings=false**.



Use this flag to display only job attributes.



- Specifies the group of attributes that you want to display for the specified job, auxiliary sheet, document, default document, default job, log, medium, destination, queue, resource-context, or server.

brief Displays a small subset of important attributes for each object.

verbose

Displays a larger subset of important attributes for each object.

archive

Writes only initially settable and resettable attributes to an archive file (see “Create an archive file” on page 72).

attributes

Displays the attributes you specify.

all Displays all attributes.

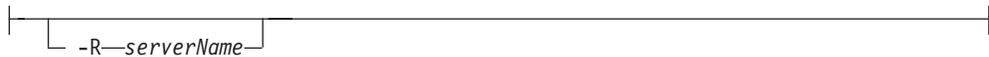
all-device

Displays all device attributes from the device associated with an actual destination.

none Displays no attributes.

If you specify more than one of these values, InfoPrint displays all the attributes requested.

Using this flag is equivalent to specifying the command attribute **requested-attributes**.



- Displays information for retained jobs only.
Using this flag is equivalent to specifying the command attribute **retained-jobs-only**.



- Specifies the format in which you want InfoPrint to display the attributes.

column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns. This is the default for **-r brief** and **-r verbose**.

doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line Each attribute is displayed on a separate line. This is the default for **-r all**, **-r "attribute ..."**, and **-r archive**.

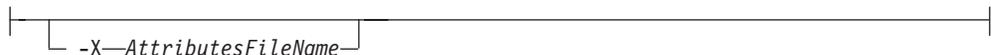
Using this flag is equivalent to specifying the command attribute **style**.



Suppresses the default user-name filter.



Consists of a single attribute string, containing one or more attribute-value pairs.



- Specifies the name of the file containing attribute and value pairs you want InfoPrint to insert at the current point in the command.

Using this flag is equivalent to specifying the command attribute **attributes**.



Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a `-x "attribute=value ..."` string or in an attributes file designated with the `-X AttributesFileName` flag.



Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

```
associated-actual-destinations=truefalse
```

Specifies whether you want to have information displayed for a logical destination's associated actual destinations as well as the logical destination specified as the command argument. Associated actual destinations are defined as those listed on a logical destinations initial-value-job's **actual-destinations-requested** attribute, or if no actual destinations are listed, then all the actual destinations associated with the same queue as the logical destination.

```
operation-class=

|                                |
|--------------------------------|
| job                            |
| associated-actual-destinations |
| auxiliary-sheet                |
| document                       |
| initial-value-document         |
| initial-value-job              |
| log                            |
| medium                         |
| destination                    |
| queue                          |
| resource-context               |
| transform                      |
| server                         |


```

Specifies the object class of the object whose attributes you want listed. All object classes are valid.

```
filter="FilterCriteria"
```

- Specifies the selection criteria you want InfoPrint to use to select a subset from the candidate objects (if you request attribute values for multiple objects). A filter is a logical expression consisting of relations of attributes to attribute values. Among the objects you specify, InfoPrint returns only objects whose attribute values match the filter expression.

You can only use attributes for the object class (**job**, **auxiliary-sheet**, **document**, **initial-value-document**, **initial-value-job**, **log**, **medium**, **destination**, **queue**, **resource-context**, **transform** or **server**) that you specify in the command. The filter can contain an attribute other than one of those you are requesting.

Table 2. Attribute operators for filters

Operation	Operator	Strings	Integers	Time Format
Equal	==	Yes	Yes	Yes
Match first part of a value	=*	Yes	Yes	Yes
Match last part of a value	*=	Yes	Yes	Yes

Table 2. Attribute operators for filters (continued)

Operation	Operator	Strings	Integers	Time Format
Match any part of a value; such as a sub-string	*=*	Yes	Yes	Yes
Attribute present (any value)	==*	Yes	Yes	Yes
Note: When you test for attribute presence, InfoPrint evaluates the filter item as true when the attribute has a value , not just when the attribute exists. You might need a false value to satisfy the requirement, as long as the false value conforms to the general syntax.				
Match approximately; for case-insensitive sub-string	~=	Yes	No	No
Notes: 1. An approximate match occurs when at least half of the target string, regardless of starting position, matches the filter value. 2. A case-insensitive match occurs when the target string can have a mix of uppercase and lowercase characters, but the characters do match.				
Match a value greater than that specified	>	No	Yes	Yes
Match a value less than that specified	<	No	Yes	Yes

This list shows the filter syntax:

1. A filter item consisting of an attribute name, operator, and value. Table 2 on page 64 shows the operators and the data formats you can use to separate the attribute and value.
2. In Table 2 on page 64, the attribute-present operation consists of an attribute name followed by the equality operator followed by an * in place of an attribute value. For example:

```
-f "media-ready=="
```

If the attribute has no value, InfoPrint evaluates the filter item as false.

InfoPrint evaluates the filter item as true if the attribute has any assigned value.

3. InfoPrint can compare each attribute in a filter item to only one attribute value. To compare an attribute to more than one value, or to filter more than one attribute, separate the filter items with one of these operators:

The AND operator ("&&")

FilterItem && FilterItem

The expression evaluates to true only if both filter items evaluate to true.

The OR operator ("||")

FilterItem || FilterItem

The expression evaluates to true if either of the filter items evaluate to true.

- To evaluate a filter item as false, use the NOT operator before the filter item and enclose the filter item in parentheses.

Note: With InfoPrint Manager for AIX, depending on the shell you are using, you might need to place quotation marks before and after the parentheses.

The NOT operator !

!(FilterItem)

If the filter item evaluates to true, the expression is false.

If the filter item evaluates to false, the expression is true.

- When you use multiple logical operators in a filter, InfoPrint evaluates them in an order of precedence. You can override the order of precedence by using parentheses, ().

Note: Depending on the shell you are using, you might need to place quotation marks before and after the parentheses. See Table 3 for the order of precedence.

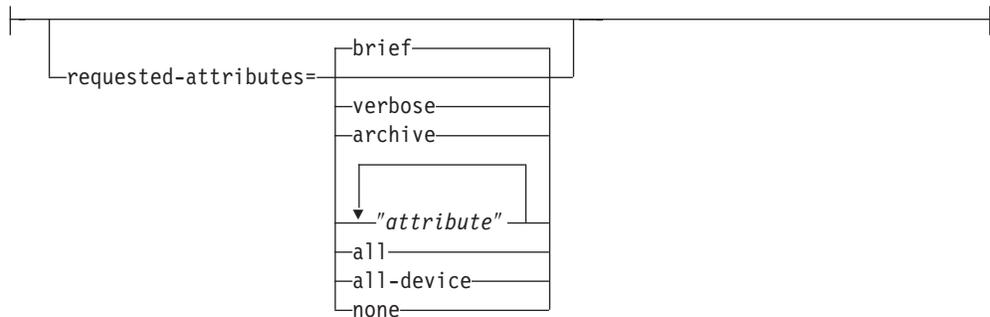
Table 3 summarizes the filter syntax. The table lists the operators in the order of precedence from highest to lowest.

Table 3. Filter syntax

Operators	Placement
Parentheses: ()	Around filter items
Relational operators: > <	Between attribute and value
Equality operators: ==	Between attribute and value
String matching: *= *= *=* ~=	Between attribute and value
NOT Operator: !	Before (filter-item) only
AND operator: &&	Between two filter items
OR operator:	Between two filter items



Specifies whether you want the output displayed with or without headings.



- Specifies the group of attributes you want to display for the specified job, auxiliary-sheet, document, default document, default job, log, medium, destination, queue, resource-context, or server object.

brief Displays a small subset of important attributes for each object.

verbose

Displays a larger subset of important attributes for each object.

archive

Writes only initially settable and resettable attributes to an archive file (see "Create an archive file" on page 72).

attribute

Displays the attributes you specify.

all Displays all attributes.

all-device

Displays all device attributes from the device associated with an actual destination.

none Displays no attributes.

If you specify more than one of these values, InfoPrint displays all the attributes requested.



Displays information for retained jobs only.



- The format in which you want the attributes displayed.

column

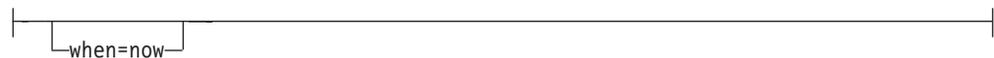
Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns. This is the default for **requested-attributes=brief** and **requested-attributes=verbose**.

doccol

For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line

Each attribute is displayed on a separate line. This is the default for **requested-attributes=all**, **requested-attributes="attribute ..."**, and **requested-attributes=archive**.



- When you specify **when=now** with object class destination, the InfoPrint server returns its current information regarding the destinations instead of performing SNMP queries to get any updates. If you have many SNMP destinations, the use of this command attribute improves the performance of your **pdls** request. For example, to list the brief attributes of all the destinations in Server1 and request that Server1 does not make SNMP queries to get the latest information but just returns its most current information, use this command:


```

LD201: enabled = true
ip1352: enabled = false
ip1352: destination-state = needs-key-operator
np17pp: enabled = false
np17pp: destination-state = needs-attention
1120psf: enabled = false
1120psf: destination-state = needs-key-operator
1145: enabled = true
1145: destination-state = idle

```

List selected attributes for a queue

To list the values of the brief attributes and the **backlogged** attribute for the queue Charlie-q, enter the command:

```
pdls -c queue -r "brief backlogged" Charlie-q
```

InfoPrint displays information similar to:

```

Charlie-q: queue-name = Charlie-q
Charlie-q: queue-state = ready
Charlie-q: associated-server = Charlie
Charlie-q: backlogged = false

```

List document formats supported by destinations

To display the document formats supported by the logical and actual destinations in Serv1, enter the command:

```
pdls -c destination -r document-formats-supported -s line Serv1:
```

InfoPrint displays information similar to:

```

Serv1-lp: document-formats-supported =
Serv1-pp: document-formats-supported = ascii
                                         ducs-ascii
                                         ditroff
                                         line-data
                                         modca-p
                                         pdf
                                         postscript
                                         tiff
Srv1-pp2: document-formats-supported = ascii
                                         ducs-ascii
                                         ditroff
                                         line-data

```

List the retention-period defaulted by a logical destination and the name of the initial-value-job being used

To list the retention-period defaulted by a logical destination and the name of the initial value job being used, enter the command:

```
pdls -c destination -r retention-period,destination-initial-value-job Dserv-lp
```

InfoPrint displays information similar to:

```

Dserv-lp:job-retention-period=1:00
Dserv-lp:destination-initial-value-job=retain

```

Filter destinations by attribute

To determine the logical destinations and actual destinations that support the selected attributes on any server, enter the command:

```
pdls -c destination -f "content-orientation-supported==landscape &&
plexes-supported==tumble && sides-supported==2"
-r "destination-realization associated-queue" \*:
```

Note: With AIX, including the backslash before the global character prevents the Korn shell from interpreting the * as a filename wildcard. InfoPrint displays information similar to:

```
Serv3-lp: destination-realization = logical
Serv3-lp: associated-queue       = Serv3-q
Serv4-lp: destination-realization = logical
Serv4-lp: associated-queue       = Serv4-q
Serv3-pp: destination-realization = actual
Serv3-pp: associated-queue       = Serv3-q
Serv4-pp: destination-realization = actual
Serv4-pp: associated-queue       = Serv4-q
```

Filter jobs by attribute

To list all jobs that have requested more than one copy and that InfoPrint has assigned to actual destination mysrv-pp, enter the command:

```
pdls -U -f "copy-count>1 && destination-assigned==mysrv-pp" "*:"
```

Note: With AIX, placing the quotation marks before the global character and after the colon prevents the Korn shell from interpreting the * as a filename wildcard.

Filter jobs by user name (include a user)

To list all jobs owned by the user named Smith, enter this command:

```
pdls -f "job-owner==Smith" -U Serv1:
```

Filter jobs by user name (exclude a user)

To list all jobs not owned by the user named Smith, enter the command:

```
pdls -f "!(job-owner==Smith)" -U Serv1:
```

Filter jobs by user name (substring) InfoPrint Manager for AIX

To list jobs owned by users with a given substring in their names (substring matching) use one of these filters with the **pdls** command:

- Initial string match:

```
pdls -U -f "job-owner=*Jones" Serv1:
```
- Any substring match:

```
pdls -U -f "job-owner**one" Serv1:
```
- Final string match:

```
pdls -U -f "job-owner*=nes" Serv1:
```

All of these commands return jobs owned by Jones.

Note: These examples use the Korn shell.

Filter jobs by user name (approximate match) InfoPrint Manager for AIX

To list jobs owned by all users with a name close to Jones (an approximate match), enter the command:

```
pdls -U -f "job-owner~=jones" Serv1:
```

Note: This example uses the Korn shell.

Display the server associated with a destination

To query for the name of the server containing logical destination draft-lp, enter the command:

```
pdls -c destination -r associated-server draft-lp
```

InfoPrint displays information similar to:

```
draft-lp: associated-server=Serv1
```

List the attributes specified in a default document

To query for the attributes specified in the default document spl7ivd contained in Serv7, enter the command:

```
pdls -c initial-value-document -r all Serv7:spl7ivd
```

InfoPrint displays information similar to:

```
spl7ivd: carriage-control-type      =
spl7ivd: chars                      =
spl7ivd: content-orientation        =
spl7ivd: initial-value-document-identifier = spl7ivd
spl7ivd: associated-server          = Serv7
spl7ivd: logical-destination-ready  = Serv7-lp
spl7ivd: copy-count                 = 2
spl7ivd: sides                      = 2
spl7ivd: document-format            = line-data
```

Note: The list that InfoPrint returns contains all possible attributes for a default document (those without values and those with values).

List all job attributes

To list all attributes of jobs 10 and 12, enter the command:

```
pdls -r all 10 12
```

List brief job attributes

To list just the brief job attributes of jobs 10 and 12, enter the command:

```
pdls -j 10 12
```

Display status of all jobs

To list the status of all jobs you have submitted to the default logical destination, Dserv-lp, enter the command:

```
pdls -f "destination-name-requested==Dserv-lp" Serv1:
```

InfoPrint displays information similar to:

Job ID	Name	Current State	Intervening Jobs	Destination Requested	Destinations Assigned
4	Sp1X:1099222204 Wkly-report	processing	0	Dserv-lp	Dserv-pp
5	Sp1X:1114222205 Test-report	processing	0	Dserv-lp	Laser-pp
6	Sp1X:1224222206 Trip-report	pending	2	Dserv-lp	
1	Sp1X:0988222201 Dept-memo12	retained		Dserv-lp	

Display status of all pending jobs

To list the job status of all pending jobs submitted to the default logical destination, Dserv-lp, enter the command:

```
pdls -f "destination-name-requested==Dserv-lp &&
      current-job-state==pending" Serv1:
```

InfoPrint displays information similar to:

Job ID	Name	Current State	Intervening Jobs	Destination Requested	Destinations Assigned
6	Sp1X:122422206	Trip-report	pending	2	Dserv-lp

List the brief attributes of a logical destination

To list the **brief** attributes of logical destination Dserv-lp, enter the command:

```
pdls -c destination Dserv-lp
```

InfoPrint displays information similar to:

Destination	Realization	Enabled	Queue
Dserv-lp	logical	true	Dserv-q

With AIX, if you do not specify a destination name, InfoPrint displays the brief attributes of all the destinations that share the same server with your default logical destination (as defined by your **PDPRINTER** environment variable).

List document formats supported by a destination

To list the document formats supported by the actual destination srv37-pp in the line style with headings, which is the default style for an attribute list, enter the command:

```
pdls -c destination -r document-formats-supported srv37-pp
```

InfoPrint displays information similar to:

```
srv37-pp: document-formats-supported = modca-p
                                           pdf
                                           postscript
```

Create an archive file

To create an archive file for a server and store it in a file, enter the command:

```
pdls -c server -r archive Serv1 > Serv1.archive
```

Query device input trays

To query the device input trays of the device associated with the prt5-ad actual destination, enter:

```
pdls -c destination -r device-input-trays prt5-ad
```

InfoPrint displays information similar to this:prt5-ad: device-input-trays=

```
{capacity=250 level=250 medium={name="na-letter-white"} empty=false name="Tray 1"}
{capacity=550 level=550 medium={source="Tray 2"} unit=sheet empty=false name="Tray 2"}
{capacity=1 medium={dimensions=(11.000000in,8.500000in)} unit=sheet empty=false name="Manual Paper"}
{capacity=1 medium={source="Manual Envelope"} unit=sheet empty=false name="Manual Envelope"}
```

Query device marker supplies, device state, and device location

To query the device marker supplies, device state, and device location for the device associated with the prt5-ad actual destination, enter:

```
pdls -c destination -r device-marker-supplies,device-state,device-location prt5-ad
```

InfoPrint displays information similar to this:

```
prt5-ad: device-marker-supplies =""  
prt5-ad: device-state=idle  
prt5-ad: device-location=""
```

Query the device-serial-number for all devices paused on Server monolith

To query the device-serial-number for all the devices associated with all the actual destinations that are paused on Server monolith, enter:

```
pdls -c destination -r device-serial-number -f"dest-state==paused && dest-realization==actual" monolith:
```

Where prt5-ad is the only actual destination paused, InfoPrint displays information similar to this:

```
prt5-ad: device-serial-number0000000000000000
```

Query the device contact and device location

To query the device contact and the device location, enter

```
pdls -cp -r device-contact, device-location ip21
```

Which results in:

```
ip21: device-contact = laboperator  
ip21: device-location = swtlab
```

Check server attributes

To check server attributes, enter

```
pdls -cp -r snmp-active,user-snmp,snmp-device-conditions  
device-state,problem-message, warning-message ip21
```

Which results in:

```
ip21: snmp-active = true  
ip21: use-snmp = true  
ip21: snmp-device-conditions = input-tray-empty  
offline  
media-low  
ip21: device-state = stopped  
ip21: problem-message =  
ip21: warning-message = "5010-837 Printer ip21 is offline."
```

Check printer attributes

To check printer attributes, enter

```
pdls -cp -r snmp-active,user-snmp,snmp-device-conditions  
device-state,problem-message, warning-message ip21
```

Which results in:

```
ip21: snmp-active = true  
ip21: use-snmp = true  
ip21: snmp-device-conditions = input-tray-empty
```

```

media-low
ip21: device-state = idle
ip21: problem-message =
ip21: warning-message = "5010-829 Printer ip21 is running but is low on paper."

```

Query to see if the panel is locked

To query to see if the operator panel is locked, enter

```
pdls -cp -4 device-op-panel-locked ip21
```

Which results in:

```
ip21: device-op-panel-locked = true
```

Archive a job

To archive a job, enter

```
pdls -c job -r archive ServerName:JobGlobalID > job.archive
```

Suggested reading in hardcopy

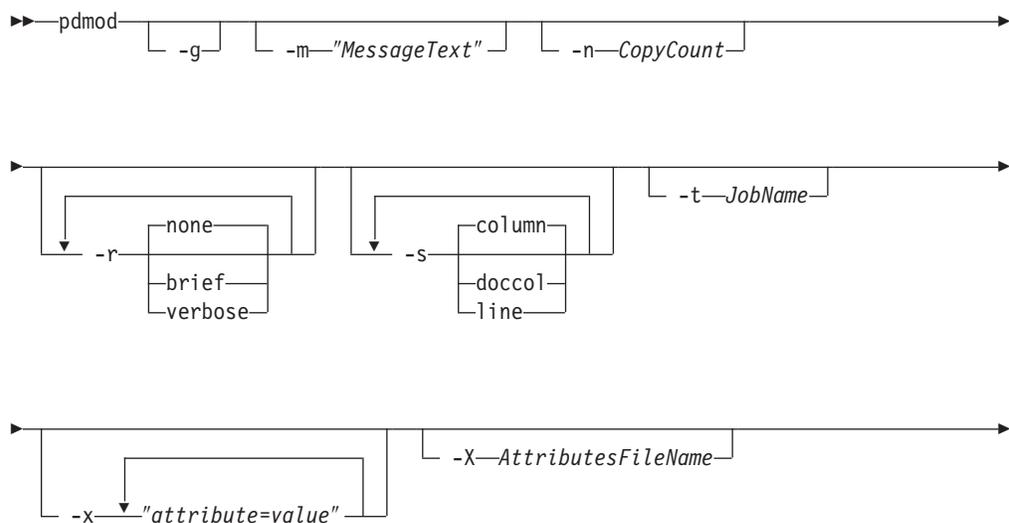
For information about:

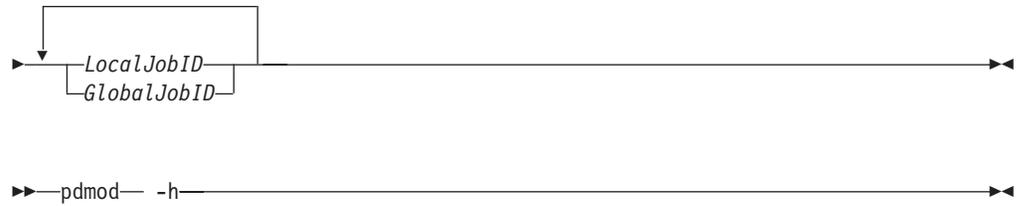
- Global character support for server names, see “Wildcards” on page 17
- Attributes file, see “Attributes file” on page 18
- Headings and style, see “Command output: headings and style” on page 16
- Attributes for InfoPrint objects, see Chapter 3, “InfoPrint object attributes,” on page 471
- For introductory information about object attributes and their use with commands, see “Introducing object attributes” on page 474, which includes information about non-settable, initially settable, and resettable attributes.

pdmod command: modifies attributes of submitted print jobs

Syntax

pdmod command





Description

Use the **pdmod** command to modify the values of job and document attributes of previously submitted jobs.

You can specify any resettable job and document attributes. See “Attributes for documents and default documents” on page 686 and “Attributes for jobs and default jobs” on page 795 for descriptions of all job and document attributes.

You can only modify preprocessing, pending, held, paused, or retained jobs. In general, you cannot modify processing or printing jobs. The only exception is if you modify only **job-hold=true**, the job will be canceled from the printer and then modified.

Modifying an existing job might affect the scheduling of the job.

Table 4 lists the four modification operators.

Table 4. pdmod operators

Operator	Syntax	Description
Replace	<i>attribute=value</i>	Replaces the entire value of the attribute <i>attribute</i> with <i>value</i> or, if not already present, adds the attribute-value pair to the job.
Add values	<i>attribute+=value</i>	Adds the value <i>value</i> to the attribute <i>attribute</i> . You cannot add values to single-valued attributes. An add request that duplicates values on a multi-valued attribute has no effect on the job.
Remove values	<i>attribute-=value</i>	Removes the value <i>value</i> from the attribute <i>attribute</i> . A remove request for a nonexistent value has no effect on the object. A remove request for the last or only value of an attribute is equivalent to a reset-to-default request.
Reset to default	<i>attribute==</i>	Sets the attribute <i>attribute</i> to the default values according to the job-defaulting hierarchy. If you supply values with a reset request, InfoPrint ignores them.

If you do not specify a value with a replace, add, or remove request, InfoPrint issues an error and rejects the request to change the attribute value for the object.

Note: If InfoPrint does not accept a modification, InfoPrint rejects the whole request and the job continues as before.

Use the global job identifier to identify jobs belonging to another person.

Flags

You can use these flags with the **pdmmod** command:



- Turns off headings.
Using this flag is equivalent to specifying the command attribute **headings=false**.



- Specifies the message you want to store in the **job-message-from-administrator** attribute. You can use the message to give the reason why you are modifying the job or to provide any other comments. If you do not specify the **-m** flag, the message already stored with the job remains unchanged.
You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdlis** command.
Using this flag is equivalent to specifying the command attribute **message**.



- Specifies the number of document copies.
Using this flag is equivalent to specifying the object attribute **copy-count**.



- Specifies the attribute values you want to display for the specified object.
none Displays no attributes.
brief Displays a small subset of important attributes for each object.
verbose
Displays a larger subset of important attributes for each object.
Using this flag is equivalent to specifying the command attribute **requested-attributes**.



- When combined with the **-r** flag or the **requested-attributes** command attribute, specifies the format in which you want InfoPrint to display the attributes.

column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line Each attribute is displayed on a separate line.

Using this flag is equivalent to specifying the command attribute **style**.

```
|-----|  
| -t JobName |
```

- Specifies the new name you want for the job.

Using this flag is equivalent to specifying the object attribute **job-name**.

```
|-----|  
| -x "attribute=value" |
```

Consists of an attribute string, containing one or more attribute-value pairs.

Prefix the attribute value with the replace operator, =, to replace a value, with the add-values operator, +=, to add a value, or the remove-values operator, -=, to remove a value. Use the reset-to-default operator, ==, with no attribute value to set the attribute to its default value.

```
|-----|  
| -X AttributesFileName |
```

- Specifies the name of a file containing attribute and value pairs you want InfoPrint to insert at the current point in the command.

Using this flag is equivalent to specifying the command attribute **attributes**.

```
|-----|  
| -h |
```

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a **-x "attribute=value ..."** string or in an attributes file designated with the **-X AttributesFileName** flag.

```
|-----|  
| attributes=AttributesFileName |
```

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

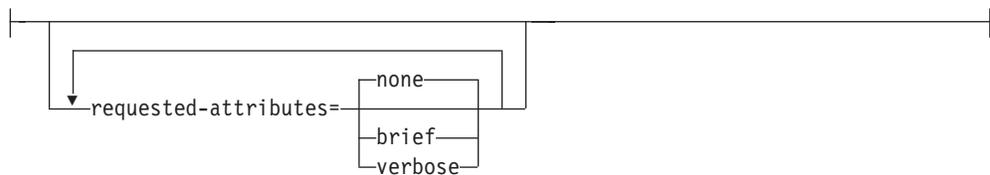


Specifies if you want InfoPrint to display headings on the output.



- Specifies the message you want to store in the **job-message-from-administrator** attribute. You can use the message to give the reason why you are modifying the job or to provide any other comments. If you do not specify the **message** attribute, the message already stored with the job remains unchanged.

You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command.



- Specifies which attributes you want displayed.

none Displays no attributes.

brief Displays a small subset of important attributes for each object.

verbose

Displays a larger subset of important attributes for each object.



- Specifies the presentation format that you want for the displayed output.

column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

doccol

For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line

Each attribute is displayed on a separate line.

Arguments

Use the argument value to identify the specific object that you want to modify. If you specify multiple objects, separate the object names with spaces.



Specifies the local or global job identifier.

Examples

- **Modify content orientation**

To modify the job with a local ID of 10 and change the orientation to landscape, enter the command:

```
pdmod -x "content-orientation=landscape" 10
```

- **Modify job hold condition**

To modify the job attribute **job-hold** to **false** for job 10 so that InfoPrint can schedule the job (previously submitted with **job-hold** set to **true**), enter the command:

```
pdmod -x "job-hold=false" 10
```

- **Modify job comment**

To modify the job attribute **job-comment** to Test Results 100 for job 10, enter the command:

```
pdmod -x "job-comment='Test Results 100'" 10
```

- **Modify the number of sides that print**

To modify the document attribute **sides** to specify that all documents in the job with global identifier DivSpool2:1011222243 should print on both sides, enter the command:

```
pdmod -x "sides=2" DivSpool2:1011222243
```

- **Add a destination location request**

To add a destination location request to job 10, enter the command:

```
pdmod -x "destination-locations-requested+='bldg.10 room 1-15'" 10
```

- **Remove a destination location request**

To remove a destination location request from job 10, enter the command:

```
pdmod -x "destination-locations-requested-='bldg.25 room 3-22'" 10
```

- **Remove all destination location requests**

To remove all destination locations requested from job 10, enter the command:

```
pdmod -x "destination-locations-requested=" 10
```

- **Combining modifications**

To modify job 17, by changing the content-orientation and removing the hold on the job, enter the command:

```
pdmod -x "content-orientation=landscape job-hold=false" 17
```

Suggested reading in hardcopy

For information about:

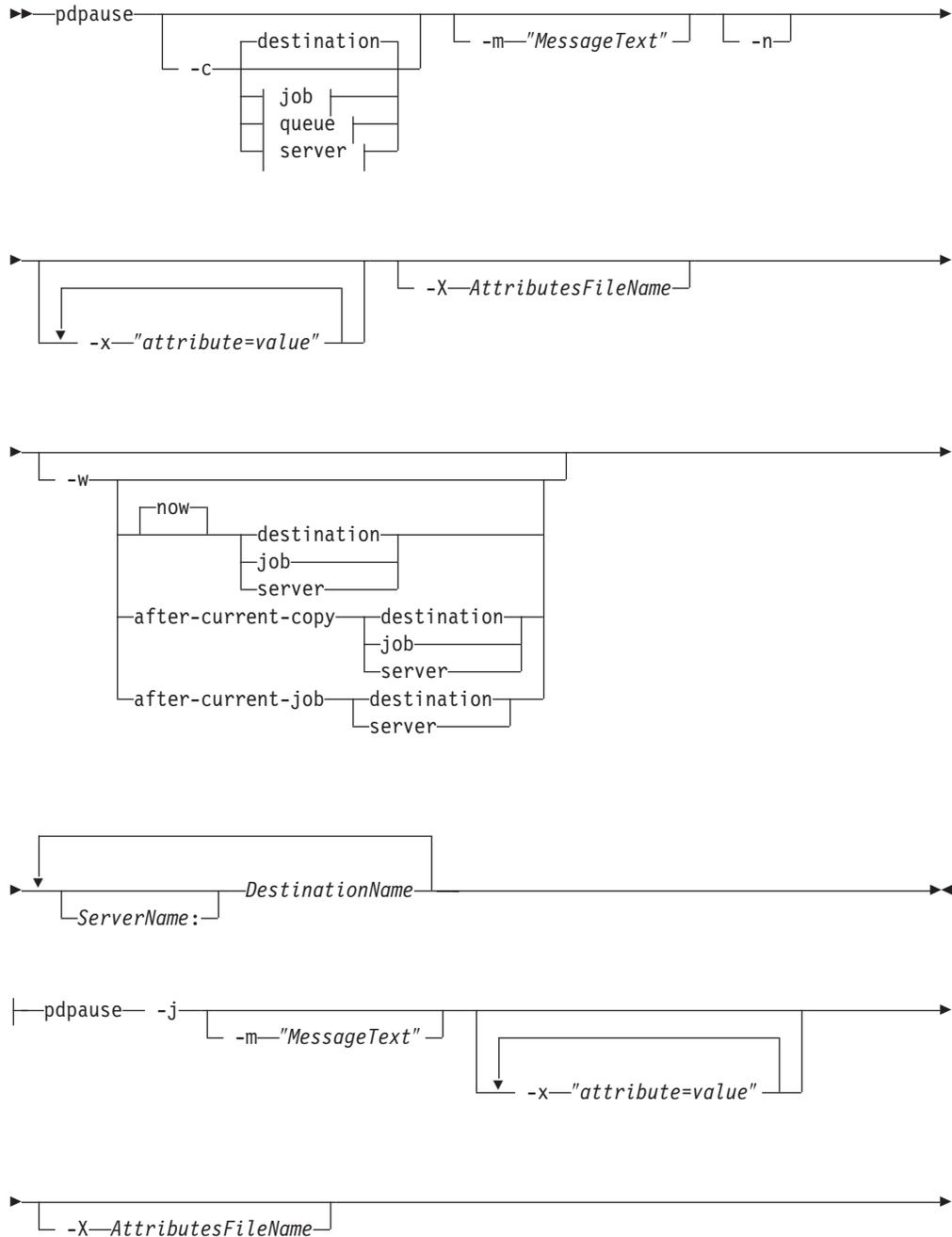
- Attributes files, see “Attributes file” on page 18
- Headings and style, see “Command output: headings and style” on page 16
- Job defaulting-hierarchy, see “pdpr command: submits jobs” on page 90
- Job attributes, see “Attributes for jobs and default jobs” on page 795
- Document attributes, see “Attributes for documents and default documents” on page 686

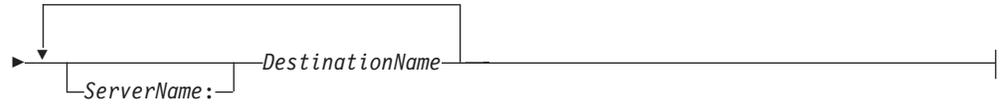
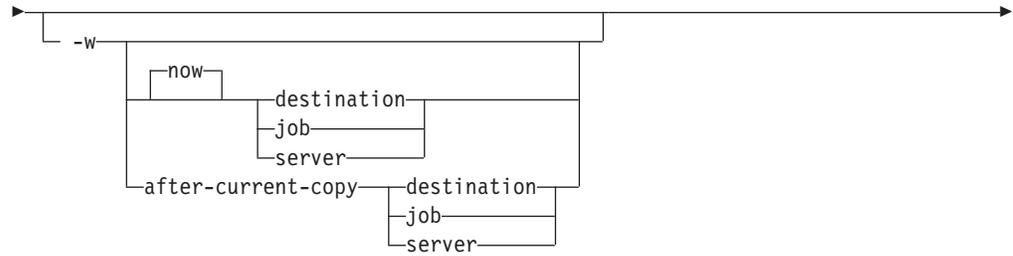
- For introductory information about object attributes and their use with commands, see "Introducing object attributes" on page 474, which includes information about non-settable, initially settable, and resettable attributes.

pdpause command: pauses jobs, actual destinations, servers, or queues

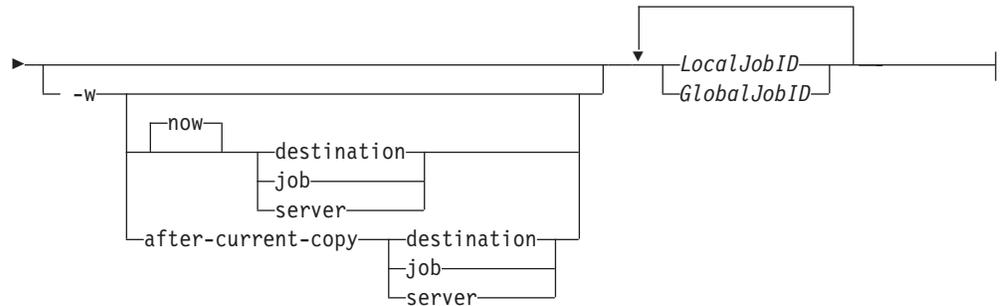
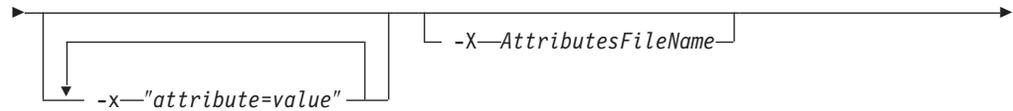
Syntax

pdpause command

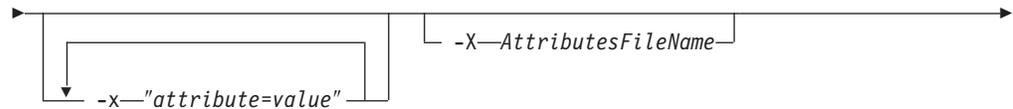


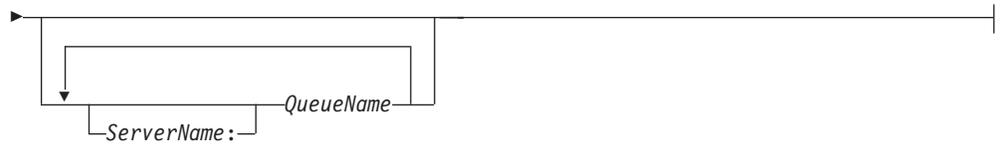


pdpause job:

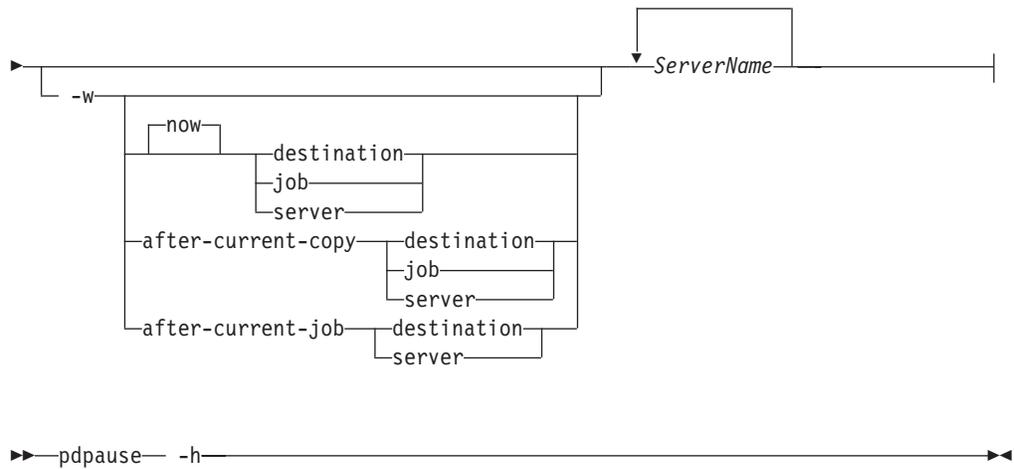
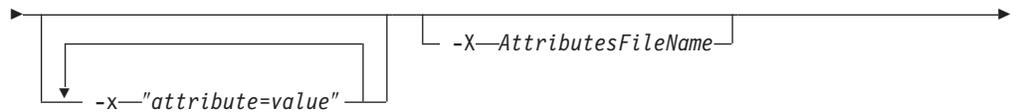


pdpause queue:





pdpause server:



Description

Use the **pdpause** administrative command to pause an object that holds jobs or to pause a job.

You can pause these objects:

- Jobs that are
 - pending
 - held
 - ripping
 - imposing
 - processing
 - printing
- Actual destinations
- Queues
- Servers (pauses all of the queues and actual destinations contained in a server)

To resume a paused object, use the **pdresume** command.

Notes:

1. Use the **pdpause** and **pdresume** commands to prevent or allow output from the object.
2. Use the **pddisable** and **pdenable** commands to prevent or allow input to the object.
3. You cannot pause PSF upload-TCP/IP-attached physical printers.
4. You cannot pause jobs on a PSF-other or a PSF-command actual destination.

Flags

You can use these flags with the **pdpause** command:



- Specifies the object class you want to pause. In the valid classes, **destination** is an actual destination.
Using this flag is equivalent to specifying the command attribute **operation-class**.



This flag is only valid when you use it with object-class **destination**. Use this flag to pause the currently printing job on the specified actual destination. The actual destination must be a physical printer, not a fax destination or an email destination.

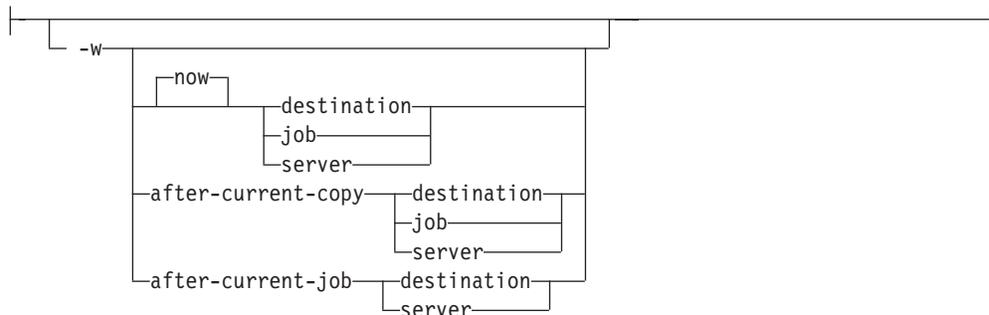


- Specifies the message you want to associate with the specified destination, queue, job, or server that you are pausing. You can use this message to indicate the reason that you are pausing the object or to provide any other comments.
When pausing a server, InfoPrint propagates the message to the **message** attribute of the actual destinations and queues residing in the server.
If the command operates on a destination or a queue, you can list this message by specifying **requested-attributes=message** with the **pdls** command.
When the command operates on a job, the specified text becomes the value of the **job-message-from-administrator** attribute. You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command.
If you do not specify the **-m** flag, the message already stored with the destination, queue, job, or server remains unchanged.
Using this flag is equivalent to specifying the command attribute **message**.



- Causes the destination to do an NPRO (move the last printed page to the stacker). Using this flag is equivalent to specifying the command attribute **non-process-runout=true**.

This flag is valid only with object class **destination** or **server**. It is not valid with the **-j** flag. It is valid only for PSF physical printers and for servers containing them.



- Specifies when to pause the destination, job, or server. If you specify:

now and the paused object is a:

destination

The destination pauses as soon as possible. How long this takes depends on the output device.

job The job pauses as soon as possible. If the job is processing or printing, how long this takes depends on the output device.

Note: If you only want to get the job off the printer immediately, you can use the **pdmod** command:

```
pdmod -xjob-hold=true
```

This will send the job back to the held queue and reprint all the pages in the job.

server The server pauses as soon as possible. How long this takes depends on the output devices represented by the destinations in the server.

after-current-copy

and the paused object is a:

destination

The destination pauses after the current copy of the current job finishes printing.

job The job pauses after the current copy finishes printing.

server The server pauses after the current copy of the current job on each actual destination in the server finishes printing.

This value is valid only for PSF physical printers, for jobs printing on PSF physical printers, and for servers containing PSF physical printers.

after-current-job

and the paused object is a:

destination

The destination pauses after the current job finishes printing.

server The server pauses after the current job on each actual destination in the server finishes printing.

This value is not valid for jobs, including jobs paused with the **-j** flag. It is valid only for PSF physical printers and for servers containing PSF physical printers.

Specifying this flag is equivalent to specifying the command attribute **when**.



A single attribute string, consisting of one or more attribute-value pairs.

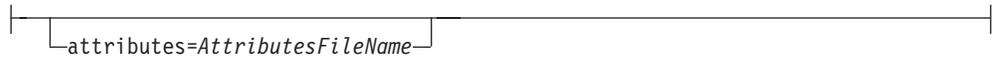


- Specifies the name of a file containing attribute and value pairs you want inserted at the current point in the command.

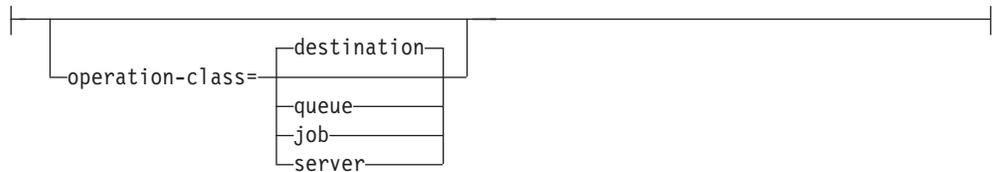
Using this flag is equivalent to specifying the command attribute **attributes**.

Command attributes

You can specify these attributes in a **-x** "attribute=value ..." string or in an attributes file designated with the **-X** *AttributesFileName* flag.



Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.



Specifies the object class that you want to pause. In the valid classes, **destination** is an actual destination.



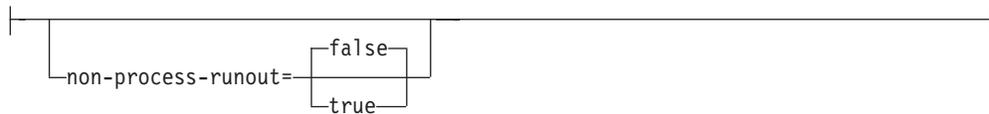
- Specifies the message that you want to associate with the specified destination, queue, job, or server that you are pausing. You can use this message to indicate the reason you are pausing the object or to provide any other comments.

When pausing a server, InfoPrint propagates the message to the **message** attribute of the actual destinations and queues residing in the server. InfoPrint does not change the server **message** attribute.

If the command operates on a destination or a queue, you can list this message by specifying **requested-attributes=message** with the **pdl**s command.

When the command operates on a job, the specified text becomes the value of the **job-message-from-administrator** attribute. You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command.

If you do not specify the **message** attribute, the message already stored with the destination, queue, job, or server remains unchanged.



Specifies whether the destination should do an NPRO (move the last printed page to the stacker). This attribute is valid only with object class **destination** or **server**. It is not valid with the **-j** flag. It is valid only for PSF physical printers and for servers containing them.



- Specifies when to pause the destination, job, or server. If you specify:

now and the paused object is a:

destination

The destination pauses as soon as possible. How long this takes depends on the output device.

job The job pauses as soon as possible. If the job is processing or printing, how long this takes depends on the output device.

Note: If you only want to get the job off the printer immediately, you can use the **pdmod** command:

```
pdmod -xjob-hold=true
```

This will send the job back to the held queue and reprint all the pages in the job.

server The server pauses as soon as possible. How long this takes depends on the output devices represented by the destinations in the server.

after-current-copy

and the paused object is a:

destination

The destination pauses after the current copy of the current job finishes printing.

job The job pauses after the current copy finishes printing.

server The server pauses after the current copy of the current job on each actual destination in the server finishes printing.

This value is valid only for PSF physical printers, for jobs printing on PSF physical printers, and for servers containing PSF physical printers.

after-current-job

and the paused object is a:

destination

The destination pauses after the current job finishes printing.

server The server pauses after the current job on each actual destination in the server finishes printing.

This value is not valid for jobs, including jobs paused with the **-j** flag. It is valid only for PSF physical printers and for servers containing PSF physical printers.

Arguments

Use the argument value to identify the specific object that you want to pause. If you specify multiple objects, all of the objects must belong to the same class and you must separate the object names with spaces.

You can use these arguments with the **pdpause** command:



- Specifies the jobs that you want to pause as determined by a local job identifier or global job identifier. In most cases, someone other than the job submitter will pause a job and must identify it by the global job ID. Job submitters who do have authority to pause jobs can identify their own jobs by the local job ID.

These actions take place when you cause InfoPrint to pause:

A ripping or imposing job:

- The job stops. If the first pages of the job have started to print or send while the last pages are ripping or imposing, the job is treated like a printing job.
- The job state changes to paused.
- The destination remains available to accept work.
- InfoPrint can assign other jobs to the destination.

A processing or printing job:

- The job stops.
- If you specify **-w=after-current-copy**, the job stops after the current copy finishes printing.
- Otherwise, the job stops as soon as possible. How long this takes depends on the type of output device printing or sending the job.

Note: If you only want to get the job off the printer immediately, you can use the **pdmod** command:

```
pdmod -xjob-hold=true
```

This will send the job back to the held queue and reprint all the pages in the job.

- The job state changes to paused.
- The destination remains available to accept work.
- InfoPrint can assign other jobs to the destination.

A pending job:

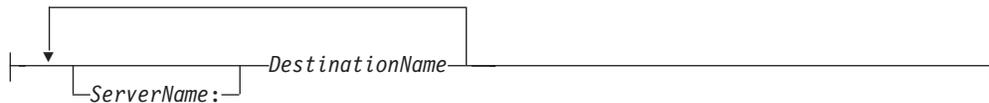
InfoPrint prevents scheduling of the job but does not affect any destination.

A held job:

InfoPrint prevents the job from becoming pending, even if you or InfoPrint removes the reason for the job hold. For example, the specified **job-print-after** time expires.

Paused jobs remain in the queue until someone resumes or cancels them. InfoPrint allows modification of a paused job, but you cannot resubmit the job until you issue a **pdresume** command for the job.

Note: If you modify a paused job, it resumes at the beginning, not at the point where it paused.



- Specifies the destinations you want to pause. The action taken depends on whether you include the **-j** flag in the command.

Without the **-j** flag:

- The destination stops.
 - If you specify **-w=after-current-job**, the destination stops after the current job finishes printing.
 - If you specify **-w=after-current-copy**, the destination stops after the current copy finishes printing.
 - Otherwise, the destination stops as soon as possible. How long this takes depends on the type of output device.
- InfoPrint changes the destination state to paused.
- InfoPrint leaves the job state unchanged; the job is still assigned to the destination.

The actual destination still accepts jobs from its associated queue up to the maximum-concurrent-jobs limit, but does not print them.

With the **-j** flag:

- The job now printing on the destination stops.

Note: The actual destination must be a physical printer, not a fax destination or an email destination.

- If you specify **-w=after-current-copy**, the job stops after the current copy finishes printing.
- Otherwise, the job stops as soon as possible. How long this takes depends on the type of printer device.

Note: If you only want to get the job off the printer immediately, you can use the **pdmod** command:

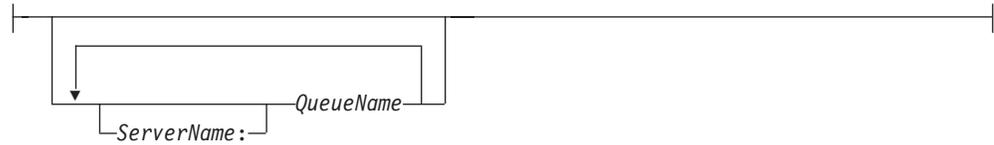
```
pdmod -xjob-hold=true
```

This will send the job back to the held queue and reprint all the pages in the job.

- InfoPrint changes the job state to paused.
- The destination remains available to accept work.
- InfoPrint can assign other jobs to the destination.

The actual destination can still accept jobs from its associated queue and process them.

Note: You cannot pause logical destinations because they do not hold jobs.



- Specifies the queues you want to pause.
Pausing a queue halts the distribution of jobs from the queue to the actual destinations associated with the queue. Pausing a queue does not prevent it from accepting jobs from its associated logical destinations.



Specifies the server on which you want the command to operate. A server does not have a paused state. Issuing the command against a server pauses all queues and actual destinations contained in the server.

Examples

- **Pause an actual destination**
To pause actual destination molly-pp and include a message as to why you are pausing the destination, enter the command:

```
pdpause -m "Toner is low, refilling" molly-pp
```
- **Pause a currently printing job**
To pause the currently printing job on destination molly-pp, enter the command:

```
pdpause -j molly-pp
```
- **Pause a queue**
To pause the queue Div1Q2, enter the command:

```
pdpause -c queue Div1Q2
```
- **Pause all queues in a server**
To pause all of the queues in server DivServ1, enter the command:

```
pdpause -c server DivServ1
```
- **Pause an actual destination after the current copy with NPRO**
To pause actual destination molly-pp after the current copy and move the last printed sheet to the stacker, enter the command:

```
pdpause -w after-current-copy -n molly-pp
```

Suggested reading

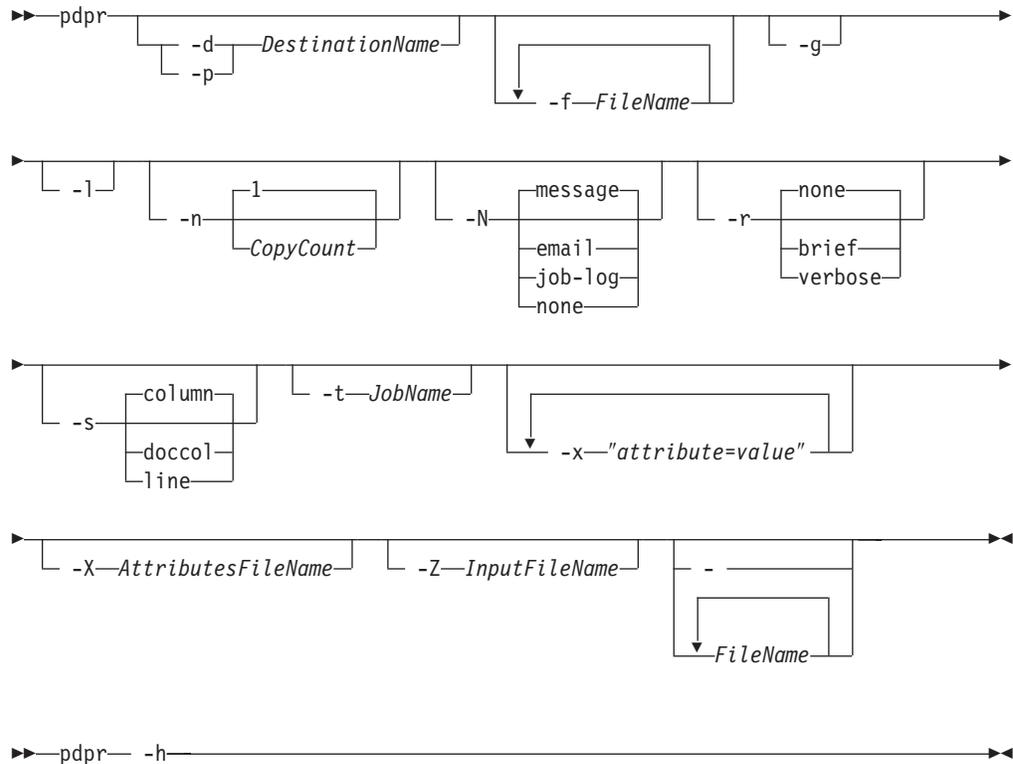
For information about:

- Attributes file, see “Attributes file” on page 18

pdpr command: submits jobs

Syntax

pdpr command



Description

Use the **pdpr** command to submit jobs to destinations. Each job can contain multiple printable documents and, for jobs sent to PSF physical printers, fax destinations, or email destinations, any number of resources.

With InfoPrint Manager for AIX, the target destination name defaults to the value of the `PDPRINTER` environment variable. You can override the default by specifying the name of another destination using the `-d` or `-p` flag or the job attribute `destination-name-requested`.

When the server accepts the job request, InfoPrint assigns a unique global ID (job identifier) and a local ID to it. Only the job submitter can use the local ID. The job submitter can use either the global ID or the local ID in subsequent commands, such as **pdmod**, **pdrm**, or **pdlis**. Anyone else who accesses the job, such as an administrator, must use the global ID.

InfoPrint sets the values for job and document attributes from these possibilities:

1. Values specified in the **pdpr** command using the `-x "attribute=value ..."` flag or the `-X AttributesFile` flag.

Note: If multiple values for the same attribute are specified in the **pdpr** command, InfoPrint uses the last value read, except for those attributes that can have different values for different documents in the same job.

2. The values of a default job specified by the job attribute **initial-value-job** or the values for a default document specified by the document attribute **initial-value-document**.
3. The values of a default job specified by the **destination-initial-value-job** attribute or the values of a default document specified by the **destination-initial-value-document** attribute of the logical destination to which the user submitted the job.
4. Server defaults for required attribute values not specified through the previous methods.

You must be authorized to submit jobs to the specified destination if the logical destination is protected (the value of its **authorize-jobs** attribute is **true**).

If the server cannot locate an actual destination (associated with the requested logical destination) supporting the job and document attributes, InfoPrint rejects the job.

Flags

You can use these flags with the **pdpr** command:

`-d—TargetDestinationName`

- The target destination can be either the actual destination name if **logical-destinations-assigned** is set on the actual destination or the logical destination name to which you want to submit the job.

With InfoPrint Manager for AIX, if you do not specify this flag (or the equivalent **-p** flag), InfoPrint uses the **PDPRINTER** environment variable to determine the destination.

Using this flag is equivalent to specifying the **destination-name-requested** attribute.

`-f—FileName`

- Specifies files you want included in the job. Use this flag only with file identifiers that are **not placed at the end of the command**. For example, to print all pages of file1 and pages 3 through 6 of file2, enter:

```
pdpr -f file1 -x page-select=3:6 file2
```

`-g`

- Turns off headings.

Using this flag is equivalent to specifying the command attribute **headings=false**.

`-l`

- Creates symbolic links to the job files rather than making temporary copies when used with InfoPrint Manager for AIX. When InfoPrint assigns the job to an actual destination, the server uses the links to the job files to locate the original files and copies them (if needed) at that time. This can be useful when printing large files or jobs.

Notes:

1. Use this flag only for jobs submitted from AIX to an AIX server; you cannot use it when submitting jobs from a workstation client or to a Windows server.
2. You must use caution when using this flag because:
 - a. Depending on when you make changes to the files and when the server prints them, the printed output might or might not reflect the changes.
 - b. If you delete the file before the job prints or while the job is printing, the printed output might fail or be incomplete.
 - c. When you are using an AIX client and sending a **pdpr** command with **PDHOST** or **PD_SOCKET**, you cannot specify the **-l** flag.



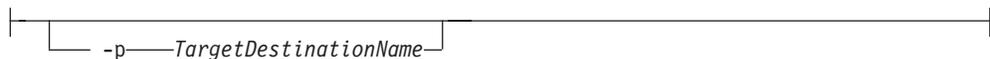
- Specifies the number of document copies that you want to print. If you do not specify the **-n** flag, the copy count defaults to one (1). Using this flag is equivalent to specifying the document attribute **copy-count=CopyCount**.

Note: You cannot use the **-n** flag or the document attribute **copy-count** if the job contains inline resources. Use the job attribute **results-profile** instead.



- Specifies the delivery method that you want to use for notification of job events for this job.

Note: Using this flag and its value causes InfoPrint to generate a **notification-profile** attribute value for this job.



- The target destination can be either the actual destination name if **logical-destination-assigned** is set on the actual destination or the logical destination name to which you want to submit the job. With InfoPrint Manager for AIX, if you do not specify this flag (or the equivalent **-d** flag), InfoPrint uses the **PDPRINTER** environment variable to determine the destination.

Using this flag is equivalent to specifying the **destination-name-requested** attribute.



- Identifies the job attribute values that you want to display for the job just created.

none Displays no attributes.

brief Displays a small subset of important attributes for the job.

verbose

Displays a larger subset of important attributes for the job.

Using this flag is equivalent to specifying the command attribute **requested-attributes**.



- When combined with the **-r** flag or the **requested-attributes** command attribute, specifies the format in which you want the attributes displayed.

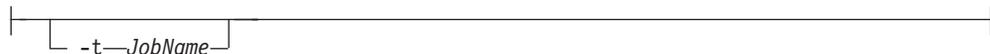
column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line Each attribute is displayed on a separate line.

Using this flag is equivalent to specifying the command attribute **style**.



- Specifies the name you want to assign to the job.

Using this flag is equivalent to specifying the job attribute **job-name**.



- Consists of a single attribute string containing one or more attribute-value pairs. Any document attribute defined with the **-x** flag affects all files whose names follow that **-x** flag on the command line, unless you reset that attribute. To reset an attribute to the default value, specify *AttributeName*==. For example, to reset the **document-type** attribute to its default value, **printable**, specify

document-type==

`-X—AttributesFileName—`

- Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command.
Any document attribute in the file defined with the **-X** flag affects all files whose names follow that **-X** flag on the command line, unless you reset that attribute. To reset an attribute to the default value, specify *AttributeName==*. For example, to reset the **document-type** attribute to its default value, **printable**, specify `document-type==`.
Using this flag is equivalent to specifying the command attribute **attributes**.

`-Z—InputFileName—`

- Specifies the name of a file containing command flags, command attributes, or the names of files to be printed, that you want InfoPrint to insert at the current point in the command. Use this flag when the command is too long to fit on the command line.
For more information about the format of the *InputFileName*, see “Attributes file” on page 18.

`-`

Entering a dash (hyphen) causes the command to read from standard input (STDIN). If you use this flag, it must occur at the end of the command after any other flags or command attributes.

`-h—`

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag).

Command attributes

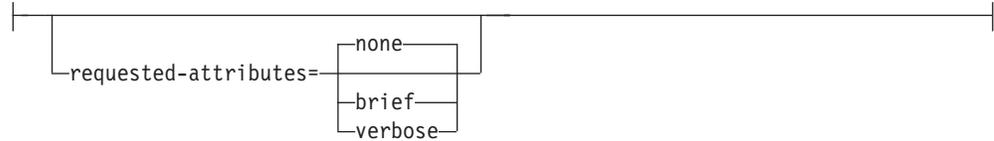
You can specify these attributes in a **-x** “*attribute=value ...*” string or in an attributes file designated with the **-X** *AttributesFileName* flag.

`attributes=AttributesFileName—`

- Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.
Any document attribute in the attributes file affects all files whose names follow that **attributes** command attribute on the command line, unless you reset that attribute.
To reset an attribute to the default value, specify *AttributeName==*. For example, to reset the **document-type** attribute to its default value, **printable**, specify `document-type==`.



Specifies whether you want InfoPrint to display headings with the attributes.



- Specifies which job attributes you want InfoPrint to display.
 - none** Displays no attributes.
 - brief** Displays a small subset of important attributes for each object.
 - verbose** Displays a larger subset of important attributes for each object.



- Specifies the presentation format in which you want InfoPrint to display the output.
 - column** Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.
 - doccol** For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.
 - line** Each attribute is displayed on a separate line.

Job and document attributes used with the command

There are two types of object attributes used with the **pdpr** command, per-job and per-document. You can specify these attributes in a **-x "attribute=value ..."** string or in an attributes file designated with the **-X AttributesFileName** flag. You can specify any initially settable or resettable job or document attribute with the **pdpr** command. See "Attributes for documents and default documents" on page 686 and "Attributes for jobs and default jobs" on page 795 for descriptions of job and document attributes.

- **Per-job attributes**

Per-job attributes apply to the job as a whole and can occur anywhere in the **pdpr** command.

- **Per-document attributes**

If you specify some document attributes before the first document (file) on the command line, those attributes apply to all documents (files) you specify for this job. If you specify a different document attribute between the first and second document (files), that attribute applies to the second document and any

following document you specify for this job. This progression of attributes to files continues until the last document (file) specified.

The value for a given attribute must be the same for all the documents in the job except for those listed in "Per-document attribute listing" on page 689. Even for those attributes, the value must be the same for all documents in the job if the documents are in ASCII format.

Arguments

Use the argument value to identify the name of a file that you want to print. If you specify multiple file identifiers, separate the file identifiers with spaces. Each file becomes a document in the job. Unless you end the command with the `-f` flag, indicating that **pdpr** is to read from standard input, you must place at least one file identifier without the `-f` flag at the end of the command.

|—*FileName*—|

Specifies the document that you want to print. Precede the file name by any per-document attributes.

If you specify a multi-document job, and if InfoPrint cannot support one or more of the documents in the job, InfoPrint rejects the job and issues an error message.

Examples

- **Print a job on the default logical destination**

To submit the file `File1` to your default logical destination, enter the commands:

```
pdpr File1
```

- **Print a job on a specified logical destination**

To submit the file `File1` to the logical destination `fred-lp`, enter the command:

```
pdpr -d fred-lp File1
```

- **Print a job on a specified actual destination**

To submit the file `File5` for printing on actual destination `draft-pp`, enter the command:

```
pdpr -p fred-lp -x "actual-destinations-requested=draft-pp" File5
```

Or if the `draft-pp` actual destination has its **logical-destinations-assigned** attribute set to `fred-lp`:

```
pdpr -p draft-pp File 5
```

- **Print a multi-document job**

To submit the files `File1` and `File2` to the default logical destination, enter the command:

```
pdpr File1 File2
```

- **Fax a job**

To submit the cover sheet `faxcover` and the file `Memo1` to the logical destination `Serv1-faxout` for faxing to fax number `1-709-123-4567`, enter the command:

```
pdpr -d Serv1-faxout -x "fax-number=17091234567  
document-type=cover-sheet" -f faxcover  
-x "document-type=printable" Memo1
```

Note: This example only applies to InfoPrint Manager for AIX.

- **Email a job**

To submit the file `report.ps` to the logical destination mailbox for electronic mailing to `julia@kingston`, enter the command:

```
pdpr -d mailbox -x "email-to-address=julia@kingston subject-text='Status Report'" report.ps
```

Note: This example only applies to InfoPrint Manager for AIX.

- **Print multiple copies of each document in a job**

To submit a job to the default logical destination and to specify two copies of each file in the job, enter one of these commands:

```
pdpr -n 2 b Contents Body1 Body2 Append ? pdpr -x "copy-count=2" b Contents Body1 Body2 Append
```

InfoPrint prints two copies of `b`, followed by two of `Contents`, and so forth for each file in the job.

Note: You cannot use the `-n` flag or the document attribute `copy-count` if the job contains inline resources. Use the job attribute `results-profile` instead.

- **Print multiple copies of a job**

To submit the job to the default logical destination and to specify two copies of the complete job, enter the command:

```
pdpr -x "results-profile=::2" b Contents Body1 Body2 Append
```

InfoPrint prints a single copy of each file in the job, and then prints a second set in the same manner.

- **Print multiple copies of documents and jobs**

To submit a job to the default logical destination and to specify two copies of the complete job with each copy of the job containing three copies of each file, enter the command:

```
pdpr -n 3 -x "results-profile=::2" b Contents Body1 Body2 Append
```

InfoPrint prints three copies of `b`, followed by three copies of `Contents` and so until the first copy of the job completes. Then InfoPrint prints a second set in the same manner.

- **Specify job name**

To submit the file `File1` to your default logical destination and to specify the job name, enter the command:

```
pdpr -t CmdRef File1
```

- **Print a duplexed job**

To submit the file `File1` to the default logical destination and to specify normal-duplexed printing, enter the command:

```
pdpr -x "sides=2 plex=simplex" File1
```

- **Specify document format**

To submit the file `PSFile2` to the default logical destination and to specify a document format of ASCII, enter the command:

```
pdpr -x "document-format=ascii" PSFile2
```

- **Request status**

To submit the file `File1` to the default logical destination and to receive brief status information, enter the command:

```
pdpr -r brief File1
```

InfoPrint displays information similar to:

Job ID	Name	Current State	Destination Requested	Destinations Assigned
8	sp15:0754100002	File1	pending	LogPrt1

- **Delay printing**

To submit the file BigJob to the default logical destination and to delay printing until after 6:30 p.m. on May 2, 1997, enter the command:

```
pdpr -x "job-print-after='18:30:00 05/02/97'" BigJob
```

- **Specify a symbolic link**

To submit the file BigJob to a logical destination LogPrt4 without copying the file, enter the command:

```
pdpr -p LogPrt4 -l BigJob
```

Note: This example only applies to InfoPrint Manager for AIX.

- **Specify job discard time**

To submit the file BigJob to the default logical destination and to specify that InfoPrint is to discard the job if it has not printed by 5:00p.m., enter the command:

```
pdpr -x "job-discard-time=17:00:00" BigJob
```

- **Retain a job**

To submit the file File1 to the default logical destination requesting feedback of job attributes (brief group), and to specifying a retention period of 90 minutes so you can print more copies after you have looked at the first copy, enter the command:

```
pdpr -r brief -x "job-retention-period=90" File1
```

Note the job number (local ID) so you can use that number when you want to print more copies in the time allotted.

- **Specify default job and document**

To submit the file File1 to the default logical destination and use the job attribute values specified in the default job ivj23 and the document attribute values specified in the default document ivd44, enter the command:

```
pdpr -x "initial-value-document=ivd44 initial-value-job=ivj23" File1
```

- **Specify attributes files for a job**

To submit the file File5 to the default logical destination and to specify the two attributes files default.att and special.att, enter the command:

```
pdpr -X default.att -X special.att File5
```

- **Specify different attribute values for different documents**

To submit the files File5, File6, and File7 to the default logical destination and to specify that:

- Each document starts on a new sheet of paper
- You want to print pages 11 through 20 of File5, all pages of File6, and all pages of File7
- Each document has a different estimated page count

enter the command:

```
pdpr -x "start-on-new-sheet=true page-select=11:20 page-count=10"
-f File5 -x "page-select== page-count=3" -f File6
-x "page-count=19" File7
```

- **Override an attribute value in an attributes file**

To submit the file `File1` to the default logical destination and override the value of 2 for the `sides` attribute specified in a given attributes file, enter the command:

```
pdpr -X default.att -x "sides=1" File1
```

- **Request feedback concerning the job as each event happens**

To submit the file `File1` to the default logical destination and to have all possible event notifications sent to you by electronic mail, enter the command:

```
pdpr -x "notification-profile={event-identifiers=job-modified  
class-job-problem class-job-attention delivery-method=electronic-mail}" File1
```

- **Specify destination location**

To submit the file `File5` for printing on one of the printer devices located in Building 20, Room 17, enter the command:

```
pdpr -d LogPrt20 -x "destination-locations-requested=bld20.rm17" File5
```

- **Specify a medium**

To submit the file `MyAddress` to logical destination `MServ-lp` and to specify a default medium of `number-10-envelope` for the job, enter the command:

```
pdpr -p MServ-lp -x "default-medium=number-10-envelope" MyAddress
```

- **Specify a command input file**

To submit a job and read the command flags, command attributes, and names of files to be printed from the file `pdinput` instead of from the command line, enter the command:

```
pdpr -Z pdinput
```

- **Specify a code page for ASCII jobs**

To print the files `File1` and `File2` and to specify the code page `IBM-863`, enter the commands:

```
pdpr -d LogPrtPSF -x "default-character-mapping=IBM-863" File1 File2
```

- **Print a range of pages**

To print pages 1 through 10 of the file `report.ps`, enter the command:

```
pdpr -p LogPrtPSF -x "document-format=postscript  
destination-pass-through=-o-p 1-10" report.ps
```

Suggested reading in hardcopy

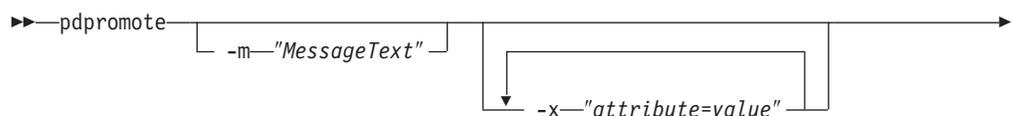
For information about:

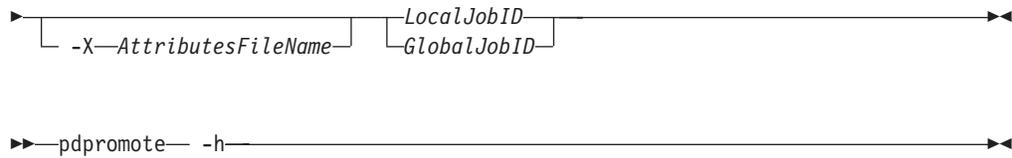
- Attributes file, see “Attributes file” on page 18
- Headings and style, see “Command output: headings and style” on page 16
- Document attributes, see “Attributes for documents and default documents” on page 686
- Document attributes that can have different values for each document in a job, see “Per-document attribute listing” on page 689
- Job attributes, see “Attributes for jobs and default jobs” on page 795

pdpromote command: advances a job to the top of a queue

Syntax

pdpromote command





Description

Use the **pdpromote** administrative command to move a pending job before any currently-queued jobs. The job becomes the first job in the queue. If you then promote another job, it becomes the first job in the queue ahead of the job previously promoted.

A move to the beginning of the queue does not necessarily guarantee that the job is the next job to be printed or sent. The jobs currently printing on each of the actual destinations associated with the queue continue printing. The server assigns the promoted job to the first actual destination that:

- Becomes available
- Uses the **job-priority** scheduler
- Is capable of handling the promoted job

You can change the priority level of a job by setting the **job-priority** attribute with the **pdmod** or the **pdset** command. However, InfoPrint promotes a job regardless of its priority to the top of the queue when you use the **pdpromote** command.

Flags

You can use these flags with the **pdpromote** command:



- Specifies the message you want to store in the **job-message-from-administrator** attribute. You can use this message to indicate why you want to promote the job or to provide any other comments. If you do not specify the **-m** flag, the message already stored with the job remains unchanged.

You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command.

Using this flag is equivalent to specifying the command attribute **message**.



A single attribute string, consisting of one or more attribute and value pairs.



- Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command.

Using this flag is equivalent to specifying the command attribute **attributes**.

-h

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a **-x** "*attribute=value ...*" string or in an attributes file designated with the **-X** *AttributesFileName* flag.

`-attributes=AttributesFileName`

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

`-message="MessageText"`

- Specifies a message you want to store in the **job-message-from-administrator** attribute. You can use this message to indicate why you want to promote this job or to provide any other comments. If you do not specify the **message** attribute, the message already stored with the job remains unchanged.
You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command.

Arguments

Use the argument value to identify the specific object that you want InfoPrint to promote. You can use these arguments with the **pdpromote** command:

`-LocalJobID`
`-GlobalJobID`

Specifies the job you want to promote. By default, end users do not have permission to promote jobs. Therefore, in most cases someone other than the job submitter will promote a job and must identify it by the global job ID. Job submitters who do have permission to promote jobs can identify their own jobs by the local job ID.

When you specify a job with the **pdpromote** command, it becomes the first job in the queue. If another job is then promoted, it becomes the first job in the queue (ahead of the job previously promoted).

Example

To promote job `Serv1:1099600001` and add a job message from the administrator, enter the command:

```
pdpromote -m "This job must be printed in 10 minutes" Serv1:1099600001
```

Suggested reading

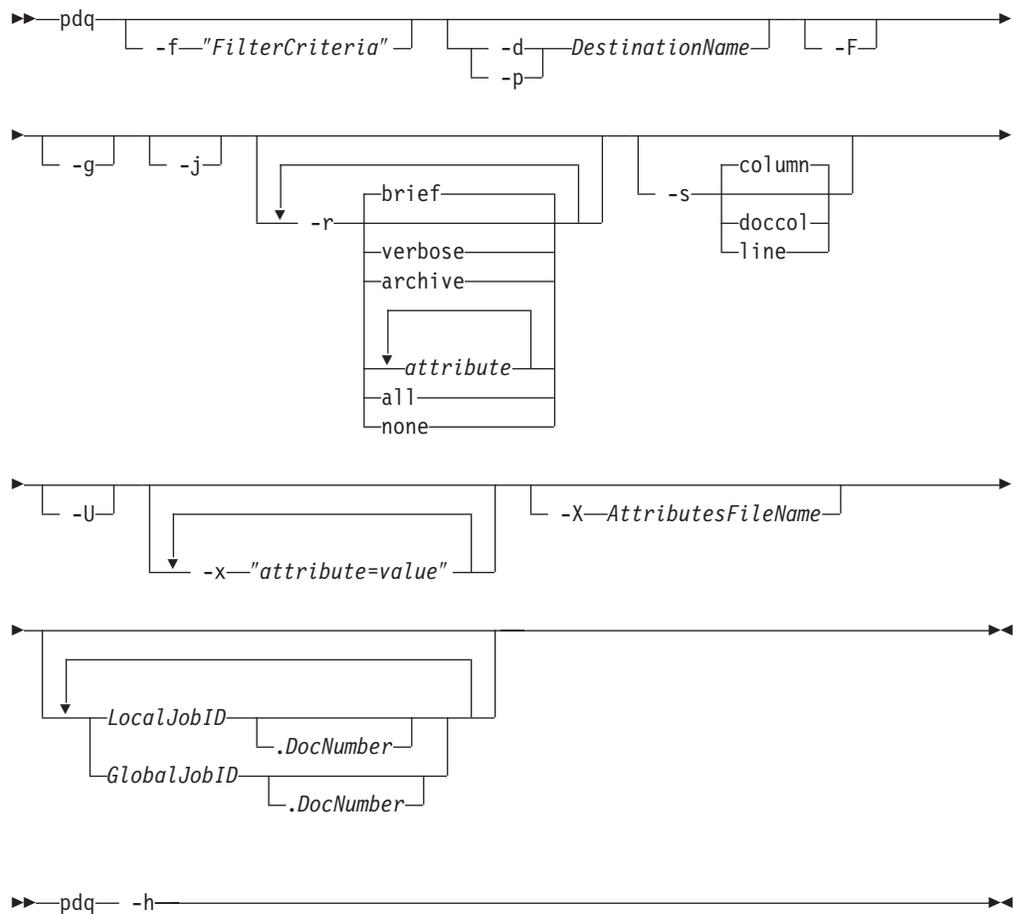
For information about:

- Attributes file, see “Attributes file” on page 18

pdq command: queries job status

Syntax

pdq command



Description

Use the **pdq** command to list the status of some or all jobs submitted to a logical destination or assigned to an actual destination.

With InfoPrint Manager for AIX, if you omit both the *LocalJobID* and the *GlobalJobID* and do not name a destination, InfoPrint lists all the jobs in the queue associated with the default logical destination, as defined by the **PDPRINTER** environment variable.

If you do not specify a value for the **-r** flag or the command attribute **requested-attributes**, the **pdq** command defaults to the value **brief**. By default, you can list the attribute values only for the jobs you submit.

InfoPrint lists the jobs in the order in which the queue considers them for printing.

You can use the filtering option so that InfoPrint returns status only for some jobs. The jobs have a predefined value for the filter that is equal to the job attribute **user-name**; InfoPrint sets this value to your login identity when you submit a job.

Flags

You can use these flags with the **pdq** command:

```
|-----|
|  -d—DestinationName—|
```

- Queries all jobs in the queue associated with this destination, or all jobs assigned to this actual destination. The results depend on the destination realization and the value of the queue attribute **assign-to-destination**, as shown in Table 5.

Table 5. Results of the *pdq* Command

Destination Realization	assign-to-destination	pdq Returns
Logical	true or false	All jobs in the queue associated with the logical destination
Actual	true	All jobs assigned to the actual destination
Actual	false	All jobs in the queue associated with the actual destination

```
|-----|
|  -f—"FilterCriteria"—|
```

- Specifies the filter selection criteria that you want to use for the jobs. Among the jobs, InfoPrint returns only those matching the filter expression. Using this flag is equivalent to specifying the command attribute **filter**.

```
|-----|
|  -F—|
```

Turns off all filtering, both specified and default. See the **-U** flag for only turning the default filter off.

```
|-----|
|  -g—|
```

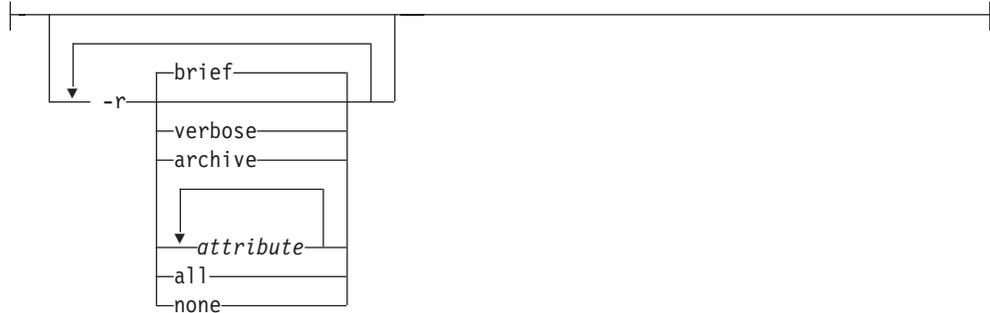
- Turns off headings. Using this flag is equivalent to specifying the command attribute **headings=false**.

```
|-----|
|  -j—|
```

Returns only the job attributes.

```
|-----|
|  -p—DestinationName—|
```

- Same as



- Specifies the group of attributes you want to display.

brief Displays a small subset of important attributes for each object.

verbose

Displays a larger subset of important attributes for each object.

archive

Writes only initially settable and resettable attributes to an archive file.

attribute ...

Displays the attributes you specify.

all Displays all attributes.

none Displays no attributes.

If you specify more than one of these values, InfoPrint displays all the attributes requested.

Using this flag is equivalent to specifying the command attribute

requested-attributes.



- Specifies the format in which you want InfoPrint to display the attributes.

column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

doccol

For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line

Each attribute is displayed on a separate line.

Using this flag is equivalent to specifying the command attribute **style**.

`-U`

Suppresses the default user-name filter.

`-x"attribute=value"`

Consists of a single attribute string, containing one or more attribute and value pairs.

`-X AttributesFileName`

- Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command.
Using this flag is equivalent to specifying the command attribute **attributes**.

`-h`

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a `-x "attribute=value ..."` string or in an attributes file designated with the `-X AttributesFileName` flag.

`attributes=AttributesFileName`

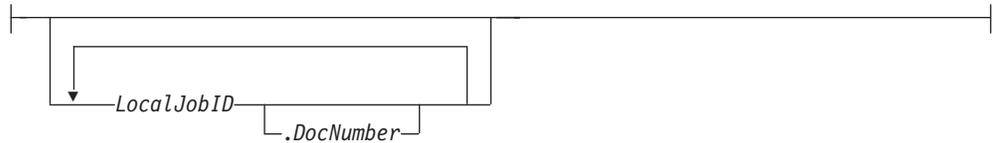
Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

`filter="FilterCriteria"`

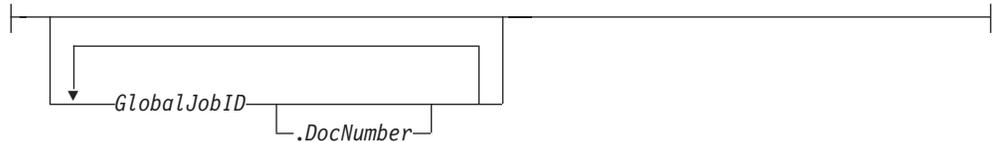
- Specifies the filter selection criteria you want used if you request attribute values for multiple objects. InfoPrint selects only some of the candidate jobs based on the filtering criteria. A filter is a logical expression consisting of relationships between attributes and attribute values. Among the specified jobs, InfoPrint only returns those whose attribute values match the filter expression.
The **filter** command attribute functions the same way for the **pdq** command as for the **pdls** command.

`headings=`

true
false



Specifies the job or documents you want InfoPrint to list as determined by a local ID or a local ID and document number. If you specify multiple arguments on the command line, separate the arguments with spaces.



Specifies the job or documents you want InfoPrint to list as determined by a global ID or a global ID and document number. If you specify multiple arguments on the command line, separate the arguments with spaces.

With InfoPrint Manager for AIX, if you omit the **-d DestinationName** or **-p DestinationName** flag and the *LocalJobID* or *GlobalJobID* argument, InfoPrint lists all of the jobs in the queue associated with your default logical destination, defined by your **PDPRINTER** environment variable.

Examples

- **Query all jobs on the default logical destination with InfoPrint Manager for AIX**

To list all your jobs sent to your default logical destination `Dsrv-lp`, enter the command:

```
pdq
```

InfoPrint displays information similar to:

Job ID	Name	State	Intervening Jobs	Destination Requested	Destinations Assigned
13	sp14:1104221000 File1	processing	0	Dsrv-lp	Dsrv-pp
14	sp14:1105226030 JobA	pending	7	Dsrv-lp	
15	sp14:1133000058 MyJob	pending	8	Dsrv-lp	

Note: If you enter the command:

```
pdq -U
```

InfoPrint displays status information for all jobs in the queue associated with your default logical destination.

- **Query all your jobs on a logical destination**

To list all jobs that you sent to logical destination `dizzy-lp`, enter the command:

```
pdq -d dizzy-lp
```

- **Query all users' jobs on a logical destination**

To list all jobs that any user sent to logical destination `dizzy-lp`, enter the command:

```
pdq -U -d dizzy
```

- **Query all your jobs assigned to an actual destination**

To list all jobs that you submitted and that InfoPrint assigned to actual destination `proof-pp`, enter the command:

pdq -p proof-pp

Note: If the value of **assign-to-destination** is **false** for the queue associated with proof-pp, InfoPrint lists all your jobs in the queue.

Suggested reading in hardcopy

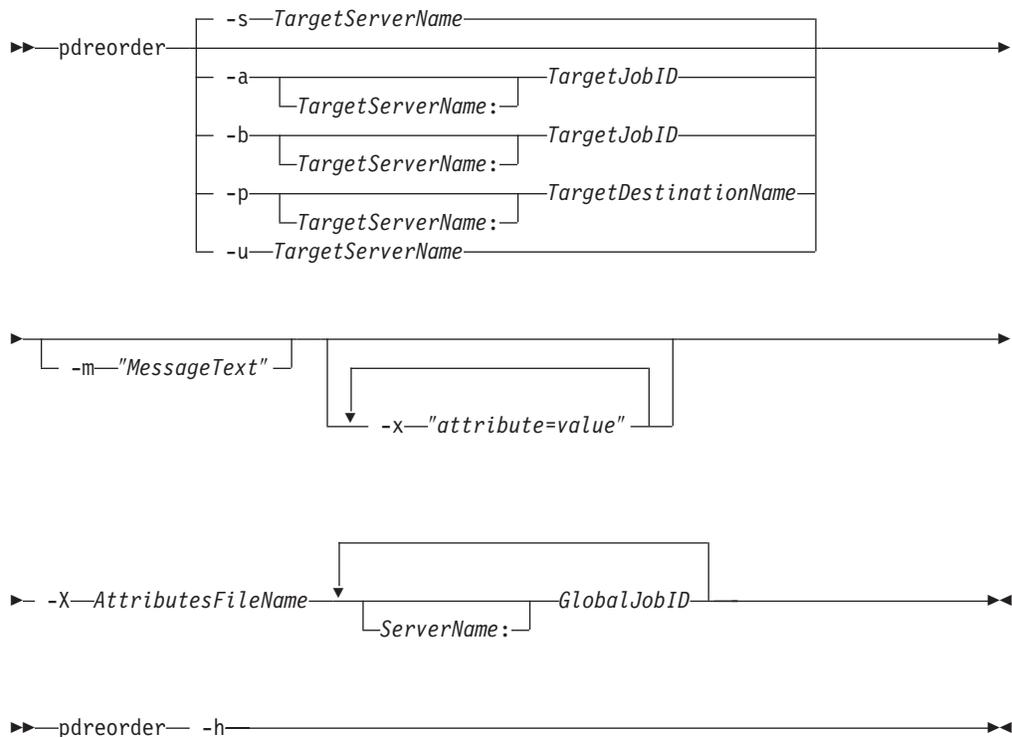
For information about:

- Filters, see the **pdls** command attribute **filter**.
- Attributes file, see “Attributes file” on page 18.
- Headings and style, see “Command output: headings and style” on page 16
- Job attributes, see “Attributes for jobs and default jobs” on page 795
- Document attributes, see “Attributes for documents and default documents” on page 686

pdreorder command: reassigns jobs

Syntax

pdreorder command



Description

Enter the **pdreorder** command to request InfoPrint to reassign a job to a actual destination or to the unassigned jobs area in the same server or another server. You can assign the job to the actual destination where another job is assigned and specify that it should be printed or sent before or after the other job. You can reassign the job to a specified actual destination, request the server to reschedule the job, or request the server to make the job an unassigned job.

If a job is reordered to an actual destination that does not support the job's attribute values, the job is held and the **required-resources-not-supported** attribute lists the unsupported values.

Note: A reorder job request is rejected if you are moving the job to another server and the document format is dpf-ipds.

Flags

You can use these flags with the `pdreorder` command:

```
| -a [TargetServerName:] TargetJobID |
```

Specifies that the reordered job should be assigned to print or send after the target job on the same actual destination.

```
| -b [TargetServerName:] TargetJobID |
```

Specifies that the reordered job should be assigned to print or send before the target job on the same actual destination.

```
| -m "MessageText" |
```

- Specifies the message you want associated with the reordered job. You can use this message to indicate the reason why the job is being reordered or other comments. Using this flag is equivalent to specifying the command attribute **message**.

You can list this message by specifying **requested-attributes=job-message-from-administrator** with the `pdls` command.

```
| -p [TargetServerName:] TargetDestinationName |
```

Specifies that the job should be reassigned to the target actual destination.

```
| -s TargetServerName |
```

Specifies that the job should be moved to the target server and that the target server should assign it to an actual destination.

```
| -u TargetServerName |
```

Specifies that the job should be moved to the target server as an unassigned job.

```
| -x "attribute=value" |
```

Consists of a single attribute string, containing one or more attribute-value pairs.

|— `-X AttributesFileName` —|

Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command line. Using this flag is equivalent to specifying the command attribute **attributes**.

|— `-h` —|

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a `-x "attribute=value ..."` string or in an attributes file designated with the `-X AttributesFileName` flag.

|— `attributes=AttributesFileName` —|

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

|— `message="MessageText"` —|

- Specifies the message you want associated with the reordered job. You can use this message to indicate the reason why the job is being reordered or other comments.
You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command.

Arguments

Use the argument value to identify the specific object for which you want the status. If you specify multiple objects, separate the object names with spaces.

You can use these arguments with the **pdreorder** command:

|— `GlobalJobID` —|
|— `ServerName:` —|

The global ID of the job to be reassigned.

Examples

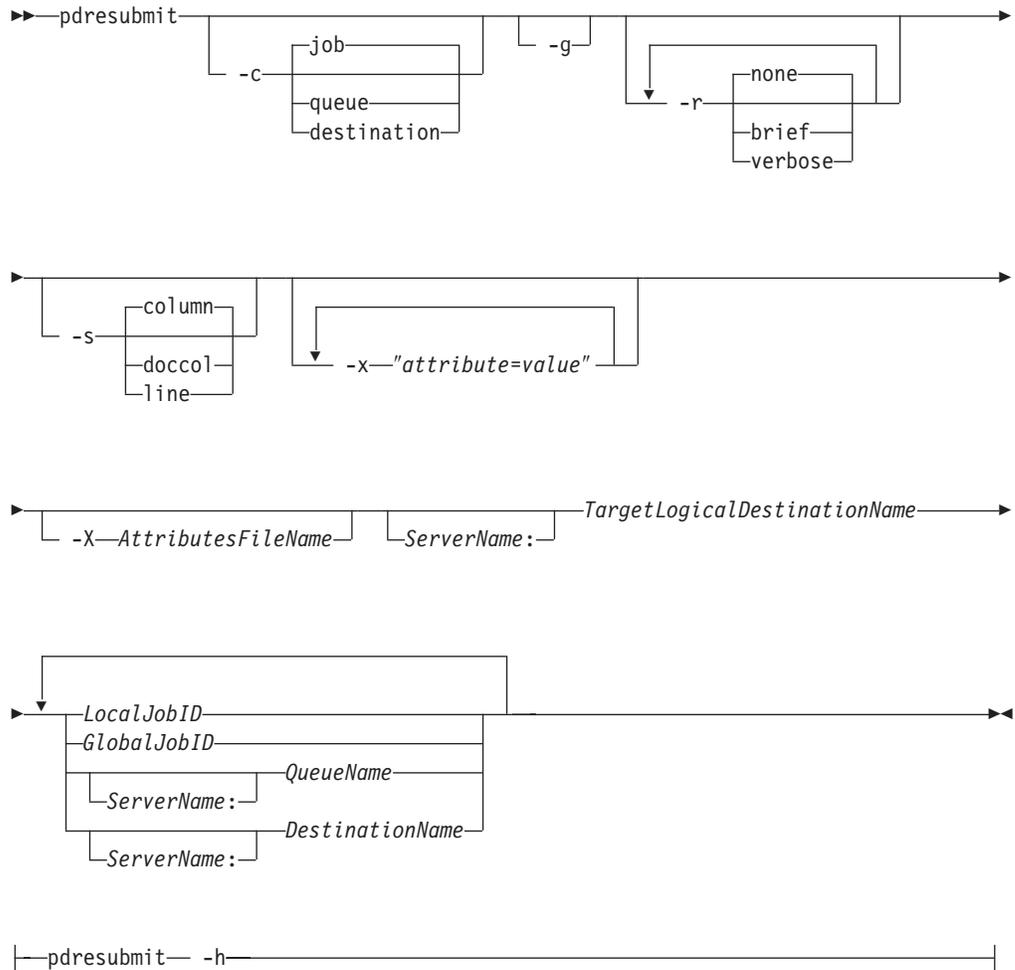
- To reorder job 1099600001 so that it prints after job 1099500047, enter the command:
`pdreorder -a 1099500047 1099600001`

- To reassign job 2000004341 from server molly to server david and have david assign it to an actual destination, enter the command:
pdreorder -s david molly:2000004341

pdresubmit command: resubmits jobs

Syntax

pdresubmit command



Description

Use the **pdresubmit** command to resubmit an existing job to a specific logical destination. The logical destination can be in the same server as the logical destination to which the job was first submitted or a different server. You can only resubmit jobs that have the current job state of **held**, **pending**, **retained**, or **unknown**.

If the logical destination specified is in a different server, the old server resubmits the job with all of its current attributes to the new server. InfoPrint includes any default attributes associated with the old server so that the new job remains as similar as possible to the old job. If the new server accepts the job, it assigns a new global job identifier and the old global job identifier becomes not valid.

Logical destinations and queues can also be arguments for this command. If a logical destination is the argument, InfoPrint resubmits all of the jobs submitted to the old logical destination to the specified new logical destination. If a queue is the argument, InfoPrint resubmits all of the jobs in the old queue to the specified logical destination. InfoPrint validates all of the resubmitted jobs again. If the newly specified logical destination does not support them, they remain in the queue that they were in originally.

If the new logical destination cannot accept the job for some reason, InfoPrint issues an error message and the job stays where it was.

Notes:

1. InfoPrint does not change the global job identifier for the job if you resubmit the job to a logical destination on the same server.
2. InfoPrint changes the global job identifier for the job if you resubmit the job to a logical destination on a different server. However, if you are the job-owner, you can still use the same local job identifier.
3. The resubmit job request is rejected if the move is to another server **and** the document format is dpf-ipds.

Flags

You can use these flags with the **pdresubmit** command:



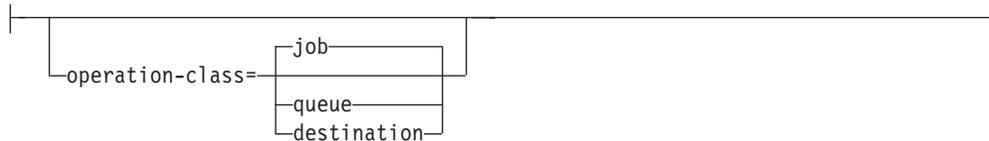
- Specifies the object class that you want for this command. In the valid classes, **destination** only applies to logical destinations. Using this flag is equivalent to specifying the command attribute **operation-class**.



- Turns off headings. Using this flag is equivalent to specifying the command attribute **headings=false**.



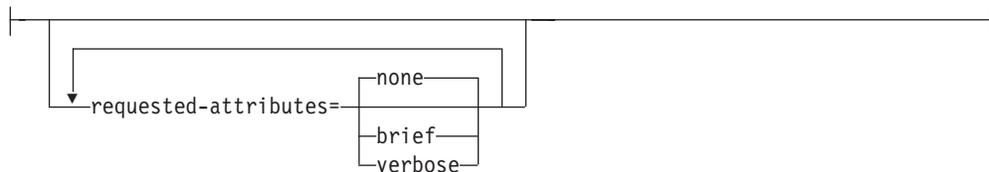
- Specifies the group of attributes you want InfoPrint to display for the specified job, queue, or destination.
 - none** Displays no attributes.
 - brief** Displays a small subset of important attributes for each object.



Specifies the object class you want for this command. In the valid classes, **destination** only applies to logical destinations.



Specifies whether you want InfoPrint to display headings for the requested attributes.



- Specifies the group of attributes you want InfoPrint to display for the specified job, queue, or destination.

none Displays no attributes.

brief Displays a small subset of important attributes for each object.

verbose

Displays a larger subset of important attributes for each object.



- Specifies the format in which you want InfoPrint to display the attributes.

column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

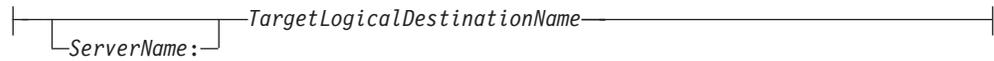
line

Each attribute is displayed on a separate line.

Arguments

Use the argument value to identify the specific object you want to resubmit. If you specify multiple objects, all must belong to the same class and you must separate the object names with spaces.

You must use these argument:

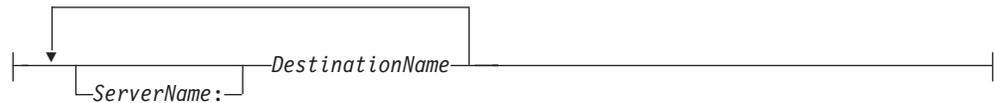


Specifies the name of the new logical destination.

You must use one of these arguments with the **pdresubmit** command:



- Specifies the job you want resubmitted as determined by a local or global job identifier. In most cases someone other than the job submitter will resubmit a job and must identify it by the global job ID. Job submitters who do have permission to use **pdresubmit**, either because they belong to the **printq** group or because the file permissions have been changed, can identify their own jobs by the local job ID.



Causes InfoPrint to resubmit to the target logical destination all jobs currently submitted to the specified logical destination.



Causes InfoPrint to resubmit to the target logical destination all jobs that are currently in the specified queue.

Examples

- **Resubmit jobs**

To resubmit jobs `server1:1098223002` and `server2:1099223003` to logical destination `local-lp`, enter the command:

```
pdresubmit local-lp server1:1098223002 server2:1099223003
```

- **Resubmit all jobs from one logical destination to another**

To resubmit all jobs submitted to logical destination `dept1-lp` to logical destination `local-lp`, enter the command:

```
pdresubmit local-lp -c destination dept1-lp
```

Suggested reading

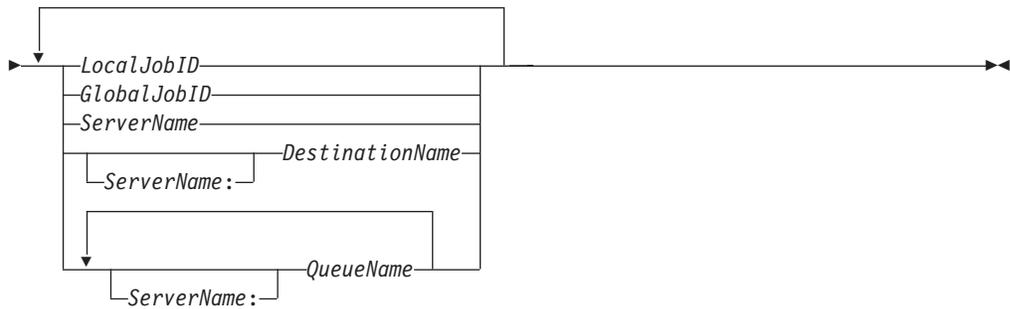
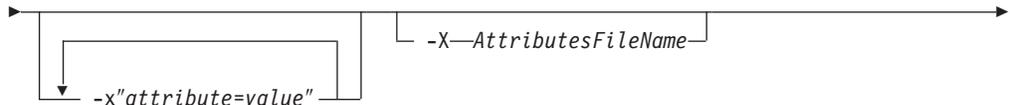
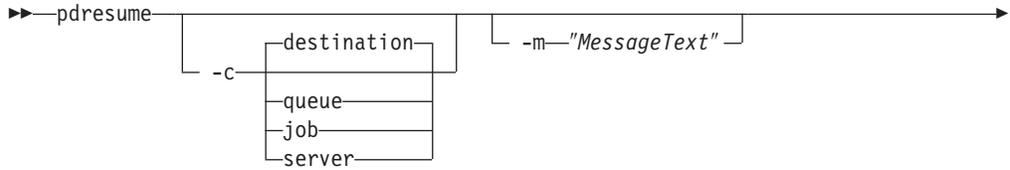
For information about:

- Attributes file, see “Attributes file” on page 18

pdresume command: enables paused objects to resume operation

Syntax

pdresume command



Description

Use the **pdresume** administrative command to cause InfoPrint to restart paused jobs, actual destinations, queues, or servers.

Note: Use the **pdresume** and **pdpause** commands to allow or prevent output from the object, whereas you use the **pdenable** and **pddisable** commands to allow or prevent input to the object.

Flags

You can use these flags with the **pdresume** command:



- Specifies the object class you want for this command. In the valid classes, **destination** is an actual destination.

Note: You cannot resume PSF upload-TCP/IP-attached physical printers. Using this flag is equivalent to specifying the command attribute **operation-class**.



- Specifies the message you want associated with the specified destination, queue, job, or server. You can use this message to indicate the reason for resumption or to provide any other comments.

When resuming a server, InfoPrint propagates the message to the **message** attribute of the actual destinations and queues residing in the server. InfoPrint does not change the server **message** attribute.

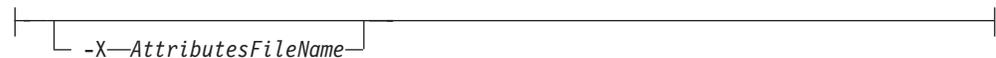
If the command operates on a job, you can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command. If the command operates on a destination, queue, or server you can list this message by specifying **requested-attributes=message** with the **pdls** command.

If you do not specify the **-m** flag, the message already stored with the object remains unchanged.

Using this flag is equivalent to specifying the command attribute **message**.



A single attribute string, consisting of one or more attribute-value pairs.



- Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command.

Using this flag is equivalent to specifying the command attribute **attributes**.



Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

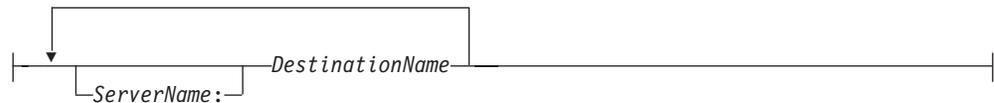
You can specify these attributes in a `-x "attribute=value ..."` string or in an attributes file designated with the `-X AttributesFileName` flag.



Resuming a job that was not previously assigned to an actual destination allows InfoPrint to schedule it.

Resuming a job that was processing when it was paused causes InfoPrint to restore it to the **pending** state and try to schedule it on the original actual destination. If the original destination is not available, InfoPrint schedules the job on another actual destination that can support the job checkpoint format and begins processing the job where it stopped. If InfoPrint cannot find another actual destination that supports the checkpoint format, InfoPrint places the job in the **held** state. You can resubmit the job, which means that InfoPrint will start the job from the beginning.

Resuming a job that had any attributes modified while it was paused causes it to restart from the beginning.



- Specifies the destination you want to resume operation.

Resuming an actual destination allows it to start processing jobs that InfoPrint has assigned to it.



- Specifies the queue you want to resume operating.

Resuming a queue resumes the distribution of jobs to actual destinations associated with that queue.



Specifies the server on which you want the command to operate. A server does not have a **paused** state. Issuing the command to a server resumes all of the paused queues and actual destinations that are located in that server. The queues can then continue to distribute jobs to actual destinations; and the actual destinations can start processing jobs.

Examples

- **Resume an actual destination**

To resume actual destination Csrv-pp and issue a message, enter the command:

```
pdresume -m "Toner refilled" Csrv-pp
```

- **Resume a queue**

To resume the queue Div1-q, enter the command:

```
pdresume -c queue Div1-q
```

- **Resume all queues and actual destinations in a server**

To resume all of the queues and actual destination in the server Mrk-server3, enter the command:

```
pdresume -c server Mrk-server3
```

Suggested reading

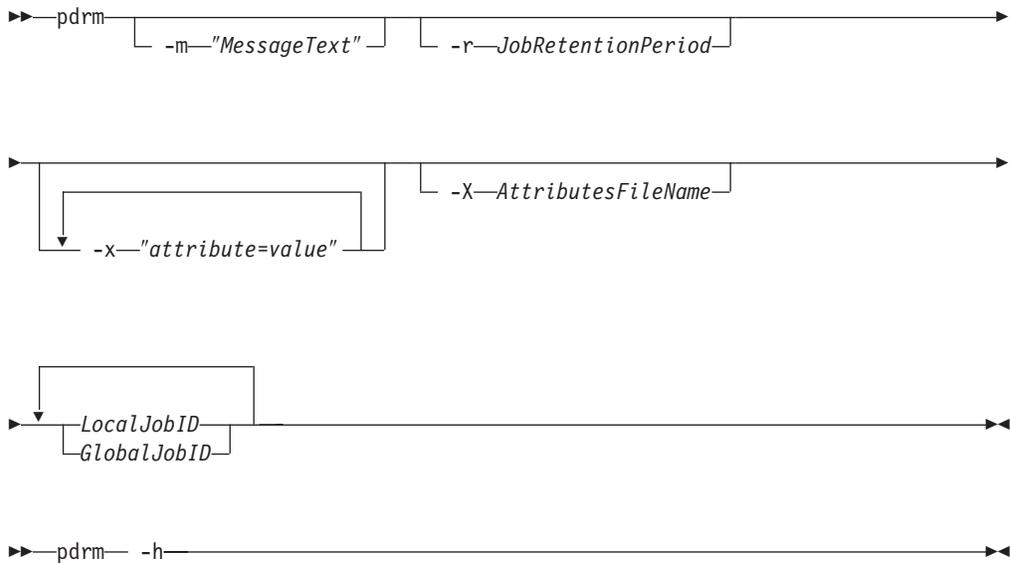
For information about:

- Attributes file, see “Attributes file” on page 18

pdrm command: removes jobs

Syntax

pdrm command



Description

Use the `pdrm` command to remove (delete) previously submitted jobs.

Notes:

1. If the job you specify is currently printing or sending, InfoPrint can only remove it at a pausable point in the job. The pausable point at which the InfoPrint can remove the job depends on the type of output device. A pausable point might be immediate or it might be the next page, sheet, document, or job boundary. If there is no such point before the end of job, InfoPrint does not remove the job.
2. When you request InfoPrint to remove a job with a non-zero value for the **job-retention-period**, **job-retain-until**, or **retain-forever** attribute, InfoPrint retains the job as specified by the retention-period attributes.
3. You can remove your own jobs by specifying either the local ID or the global ID for the job. You can remove jobs belonging to another person by specifying the global ID for the job.
InfoPrint issues a confirmation message before deleting jobs, unless the environment variable `PD_CONFIRM_DELETE` for the person requesting the job removal has a value of **no**.

Flags

You can use these flags with the **pdrm** command:

`-m—"MessageText"`

- Specifies the message you that want to associate with the specified job. The specified text becomes the value of the **job-message-from-administrator** attribute. You can use it to provide the reason you are removing the job or to provide any other comments. If you do not specify the **-m** flag, the message already stored with the job remains unchanged.

You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdlis** command.

Using this flag is equivalent to specifying the command attribute **message**.

`-r—JobRetentionPeriod`

- Specifies the period of time you want the server to retain the job before InfoPrint deletes the job. If specified, this retention period takes precedence over the previous job-retention period set for the job. If you do not specify a retention period with the **-r** flag, InfoPrint uses the current value of the **job-retain-until**, **job retention-period**, or **retain-forever** attribute.

Using this flag is equivalent to specifying the job object attribute **job-retention-period**.

`-x—"attribute=value"`

Consists of a single attribute string, containing one or more attribute-value pairs.

`-X—AttributesFileName`

- Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command.

Using this flag is equivalent to specifying the command attribute **attributes**.

`-h`

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can define these attributes in a **-x "attribute=value ..."** string or in an attributes file designated in the **-X AttributesFileName** flag.

`attributes=AttributesFileName`

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

`message="MessageText"`

- Specifies the message that you want InfoPrint to store in the **job-message-from-administrator** attribute. You can use it to provide the reason you are removing the job or to provide any other comments. If you do not specify the **message** attribute, the message already stored with the job remains unchanged.
You can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command.

Arguments

Use the argument value to identify the specific job you want to remove. You must use one of these arguments for the **pdrm** command:



- Specifies the local ID or global ID of the job that you want InfoPrint to remove. This argument must appear last in the command. To remove more than one job, separate the job identifiers with spaces.

Examples

- **Remove your own job**

To remove your job with the local ID of 15, enter the command:

```
pdrm 15
```

- **Remove another user's job**

To remove the job with global ID Server1:1011223002 on server Server1, enter the command:

```
pdrm Server1:1011223002
```

- **Remove job regardless of retention time**

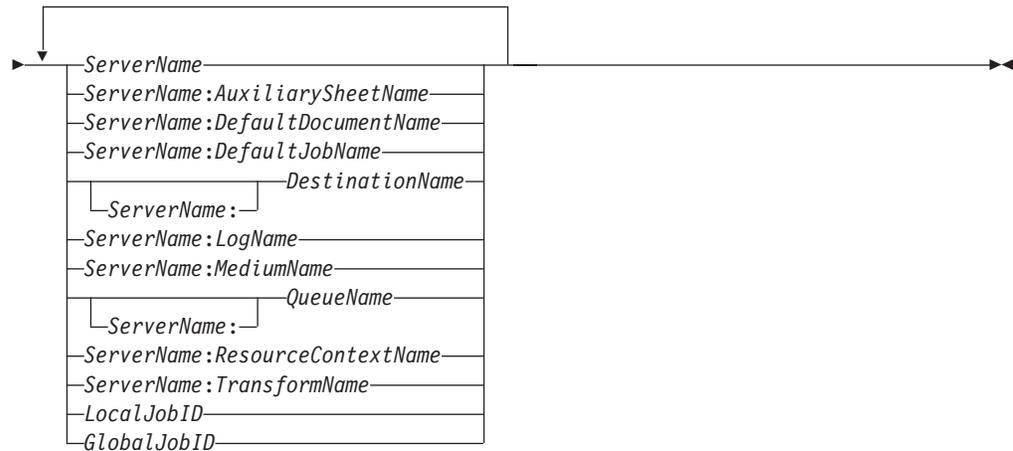
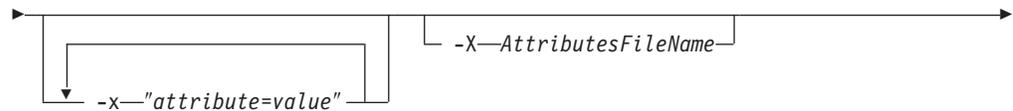
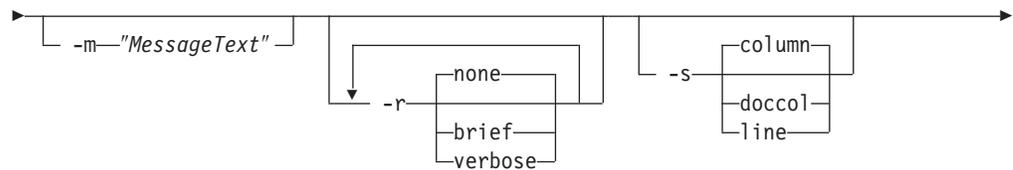
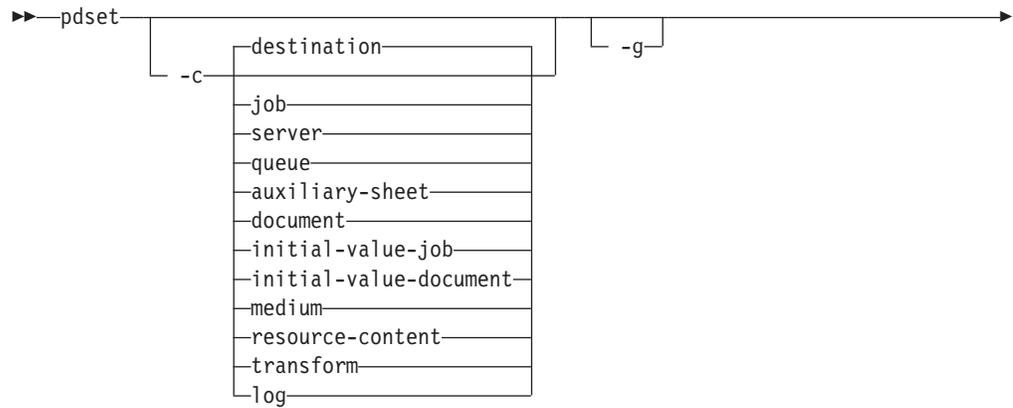
To remove your job with the local ID of 10 as soon as possible, regardless of any previously specified **job-retention-period** attribute value, enter the command:

```
pdrm -r 0 10
```

pdset command: defines attribute values

Syntax

pdset command



Description

Use the **pdset** administrative command to define or modify the values of object attributes.

If SNMP is enabled on an actual destination and the **snmp-write-community-name** attribute on the actual destination is set properly, you can be able to set information directly on the device associated with the actual destination by setting device-specific actual destination attributes. For more information about device-specific attributes, see “About SNMP communication” in the *InfoPrint Manager for AIX: Procedures* or *InfoPrint Manager for Windows: Procedures*. For a description of the individual device-specific actual destination attributes, see Chapter 3, “InfoPrint object attributes,” on page 471.

You must disable an actual destination before you can modify its attributes. However, you do not need to disable an actual destination to change values for device-specific information, such as the **device-contact** or **device-location** attributes.

You cannot set actual destination and device-specific attributes in the same **pdset** command.

For more information about device-specific attributes, see “Working with SNMP Printers” in *InfoPrint Manager for AIX: Procedures* or *InfoPrint Manager for Windows: Procedures*.

Table 6 lists the four modification operators.

Table 6. **pdset** operators

Operator	Syntax	Description
Replace	<i>attribute=value</i>	Replaces the entire value of the attribute <i>attribute</i> with <i>value</i> or adds the attribute to the object, if not already present.
Add values	<i>attribute+=value</i>	Adds the value <i>value</i> to the attribute <i>attribute</i> . You cannot add values to single-valued attributes. InfoPrint honors an add request that duplicates values on a multi-valued attribute without warning.
Remove values	<i>attribute-=value</i>	Removes the value <i>value</i> from the attribute <i>attribute</i> . InfoPrint ignores a remove request for a nonexistent value, without warning or error. A remove request for the last or only value of an attribute is equivalent to a reset-to-default request.
Reset to default	<i>attribute==</i>	Sets the attribute value <i>attribute</i> to the default. If you supply values with a reset-to-default request, InfoPrint ignores them.

If you do not specify a value with a replace, add, or remove request, InfoPrint issues an error and rejects the request to change the object.

You can only use the **Replace** operator of the **pdset** command with device-specific attributes.

You can only change values for resettable attributes using the **pdset** command. Using this command for non-settable or initially settable attributes results in an error.

See Chapter 3, “InfoPrint object attributes,” on page 471 for lists of all resettable attributes by object and a description of each attribute.

- Specifies the attribute values you want to display for the specified object.

none Displays no attributes.

brief Displays a small subset of important attributes for each object.

verbose

Displays a larger subset of important attributes for each object.

Using this flag is equivalent to specifying the command attribute **requested-attributes**.



- Specifies the format in which you want InfoPrint to display the attributes.

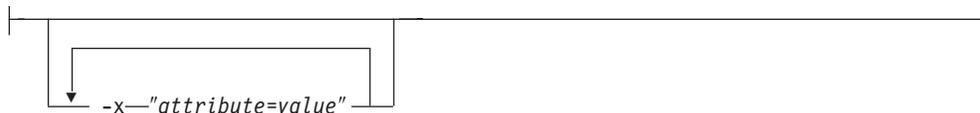
column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

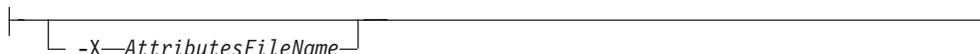
doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line Each attribute is displayed on a separate line.

Using this flag is equivalent to specifying the command attribute **style**.



A single attribute string, consisting of one or more attribute-value pairs. Prefix the attribute value with the replace operator, = , to replace a value, the add-value operator, += , to add a value or the remove-value operator, -= , to remove a value. Use the reset-to-default operator, == , with no attribute value to set the value to its default.



- Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command.

Using this flag is equivalent to specifying the command attribute **attributes**.



Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a **-x "attribute=value ..."** string or in an attributes file designated with the **-X AttributesFileName** flag.

attributes=AttributesFileName

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

operation-class=

destination
job
server
queue
auxiliary-sheet
document
initial-value-job
initial-value-document
medium
resource-context
transform
log

Specifies the object class you want for this command. In the valid classes, **destination** is for a logical destination or actual destination.

headings=

true
false

Specifies if you want InfoPrint to display headings on the output.

message="MessageText"

- Specifies the message that you want to associate with the object you are modifying. You can use this message to indicate the reason that you are modifying the object attributes or to provide any other comments. If the command operates on a job, you can list this message by specifying **requested-attributes=job-message-from-administrator** with the **pdls** command. Otherwise, you can list this message by specifying **requested-attributes=message** with the **pdls** command. If you do not specify the **message** attribute, the message already stored with the object remains unchanged.

requested-attributes=

none
brief
verbose

- Specifies the attribute values you want to display for the specified object.
 - none** Displays no attributes.
 - brief** Displays a small subset of important attributes for each object.

verbose

Displays a larger subset of important attributes for each object.



- Specifies the presentation format in which you want the output displayed.

column

Attribute values are displayed in tabular format, so that values of the same attribute for multiple objects line up in columns.

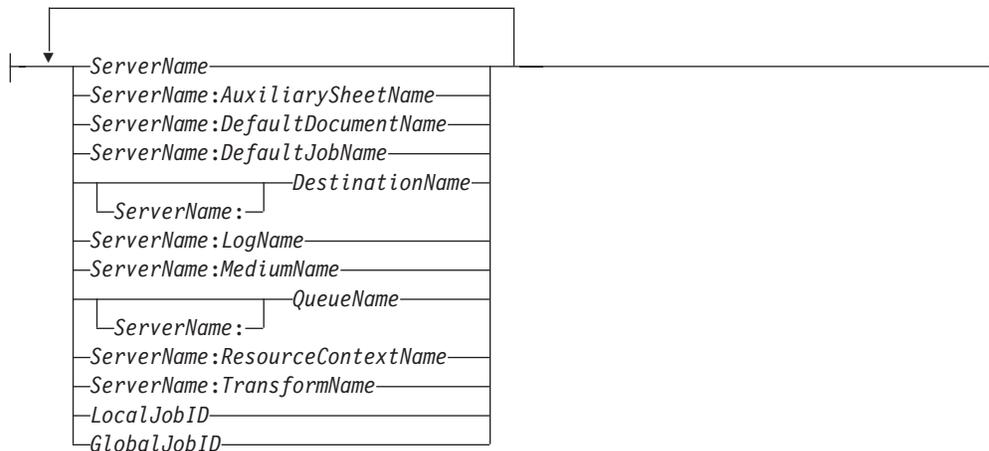
doccol For jobs only, job attribute values and the document attribute values for the first document in the job are displayed in column format on the same line.

line Each attribute is displayed on a separate line.

Arguments

Use the argument value to identify the specific object for which you want to set or modify attributes. If you specify multiple objects, separate the object names with spaces.

You can use these arguments with the **pdset** command:



By default, end users do not have permission to modify jobs. Therefore, in most cases someone other than the job submitter will modify a job and must identify the job by the global job ID. Job submitters who do have permission to modify jobs can identify their own jobs by the local job ID.

Examples

- **Specify a descriptor for a server**

To set a description for the server *Server1* and identify the processor name containing it and the TCP/IP address for the processor, enter the command:

```
pdset -c server -x "descriptor='Server Server1 is installed on  
cowboy. The TCP/IP address for cowboy is 9.99.9.143.'" Server1
```

- **Change the operator to receive messages**

To identify a new person to receive start and stop messages for actual destination Serv4-pp, enter the command:

```
pdset -c destination -x "notify-operator=electronic-mail:ro@cowboy" Serv4-pp
```

- **Set the job size range**

To set the size of jobs that users can submit to actual destination small-pp, enter the command:

```
pdset -x "job-size-range-supported=0:10000 job-size-range-ready=0:10000" small-pp
```

- **Specify media supported by an actual destination**

To specify the media supported by a given actual destination and the media currently loaded in the printer device, enter the command:

```
pdset -x "media-supported=letter na-letter-colored
        legal na-legal-colored A4 A4-colored
        psf-tray-characteristics=top:letter
        bottom:A4" Serv4-pp
```

- **Set a message**

To set the message for server Serv2, enter the command:

```
pdset -c server -m "printing system now ok" Serv2
```

- **Setting the snmp-write-community-name**

If SNMP is active, to set the **snmp-write-community-name**, enter:

```
pdset -cp -x s-w-c-n=ibmpsc_admin ip21
```

- **Setting the device location**

If SNMP is active, **snmp-write-community-name** is set appropriately, and you want to set the device location on the device associated with the prt5-ad actual destination, enter:

```
pdset -x"device-location='First floor, Bldg 005/Boulder, Colorado'" prt5-ad
```

Suggested reading in hardcopy

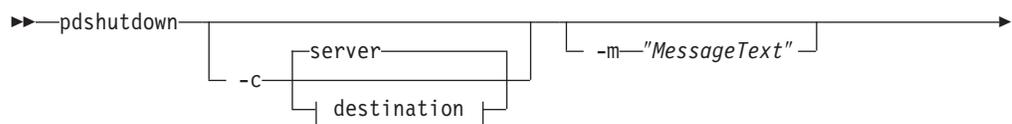
For information about:

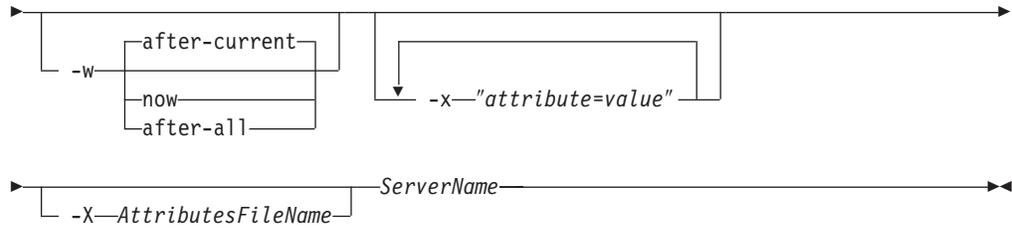
- Attributes for InfoPrint objects, see Chapter 3, “InfoPrint object attributes,” on page 471
- Attributes file, see “Attributes file” on page 18
- Headings and style, see “Command output: headings and style” on page 16
- For introductory information about object attributes and their use with commands, see “Introducing object attributes” on page 474, which includes information about non-settable, initially settable, and resettable attributes.

pdshutdown command: stops servers or actual destinations

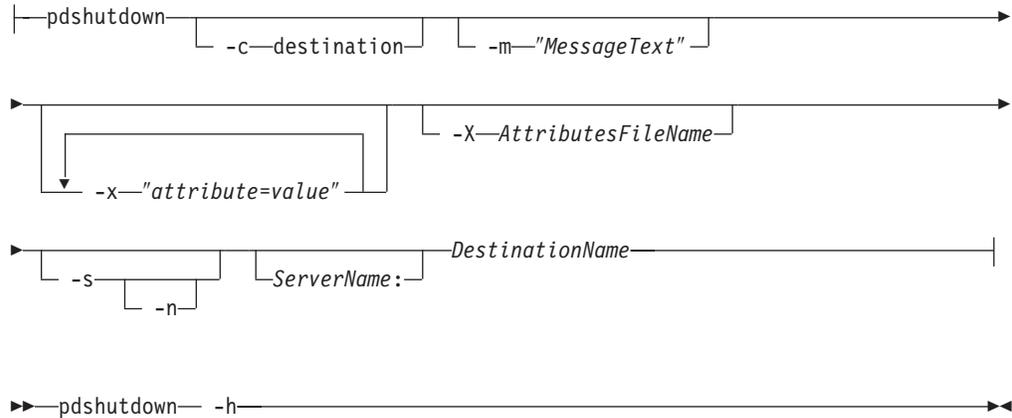
Syntax

pdshutdown command





pdshutdown destination:



Description

Use the **pdshutdown** administrative command to terminate a server process or shut down a PSF physical printer, fax destination, or email destination.

You can shut down a server either immediately or after it finishes processing some or all of its current jobs.

InfoPrint prevents the server from accepting new jobs while the server is shutting down and after it has shut down. Destinations in the server that were enabled at shutdown time are enabled when the server restarts. Destinations in the server that were disabled at shutdown time are disabled when the server restarts.

Note: To restart a server after shutdown, use the **startsrv** or **start_server** utility. See “startsrv utility: starts a server in InfoPrint Manager for AIX” on page 221 or “start_server utility: starts a server for a Basic InfoPrint Installation in InfoPrint Manager for AIX” on page 219.

Shutting down an actual destination:

- Terminates all communication with the output device
- Pauses the job printing or sending on the actual destination
- Terminates all jobs processing on the actual destination and puts these jobs in the **pending** state
- Releases jobs assigned to the actual destination so that you can reschedule them on another actual destination
- Disables the actual destination

- Causes the PSF physical printer to do an NPRO (move the last printed page to the stacker). Using this flag is equivalent to specifying the command attribute **non-process-runout=true**.

This flag is valid only with object class **destination**, and only if you also specify **-s**. It is not valid for fax destinations or email destinations.



- Synchronizes the checkpoint data for the current job with the pages that have actually printed. This permits the job to resume at the point of synchronization. Using this flag is equivalent to specifying the command attribute **synchronize=true**. Do not use this flag if InfoPrint cannot communicate with the printer device.

This flag is valid only with object class **destination**. It is not valid for fax destinations or email destinations.



- Specifies when you want a server to shut down. When the value is:
 - now** InfoPrint cancels and requeues any currently printing jobs, then shuts down the server. You must resubmit the jobs using the **pdresubmit** command when the server restarts.

after-current

The server continues to accept requests other than print requests until the currently-printing jobs finish printing, then the server shuts down.

after-all

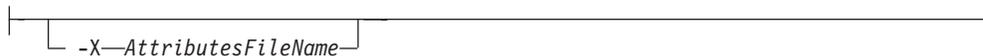
The server continues to accept all requests except print requests until all scheduled jobs finish printing, then the server shuts down.

Using this flag is equivalent to specifying the command attribute **when**.

This flag is valid only with object class **server**.



A single attribute string, consisting of one or more attribute-value pairs.



- Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command. Using this flag is equivalent to specifying the command attribute **attributes**.



Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can specify these attributes in a **-x** "attribute=value ..." string or in an attributes file designated with the **-X** *AttributesFileName* flag.

|—attributes=*AttributesFileName*—|

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

|—operation-class=
|—server—|
|—destination—|

- Specifies the object class you want to shut down. In the valid classes, **destination** is a PSF physical printer, fax destination, or email destination.

Note: If you have the InfoPrint Manager SAP feature installed, the **destination** can also be the SAP system that you are sending faxes to.

|—message="MessageText"—|

- Specifies the message you want associated with the server or actual destination being shut down. You can use this message to indicate the reason for the shutdown or to provide any other comments.

You can list this message by specifying **requested-attributes=message** with the **pdl**s command. If you do not specify the **message** attribute, the message already stored with the object remains unchanged.

|—non-process-runout=
|—false—|
|—true—|

- Specifies whether the PSF physical printer should do an NPRO (move the last printed page to the stacker).

This attribute is valid only with object class **destination**, and only if you also specify **synchronize=true**. It is not valid for fax destinations or email destinations.

|—synchronize=
|—false—|
|—true—|

- Specifies whether to synchronize the checkpoint data for the current job with the pages that have actually printed. A value of **true** permits the job to resume at the point of synchronization. Do not specify **synchronize=true** if InfoPrint cannot communicate with the printer device.

This attribute is valid only with object class **destination**. It is not valid for fax destinations or email destinations.



- Specifies when you want a server to shut down. When the value is:
 - now** InfoPrint cancels and requeues any currently printing jobs, then shuts down the server. You must resubmit the jobs using the **pdresubmit** command when the server restarts.
 - after-current**
The server continues to accept requests other than print requests until the currently-printing jobs finish printing, then the server shuts down.
 - after-all**
The server continues to accept all requests except print requests until all scheduled jobs finish printing, then the server shuts down.
- This attribute is valid only with object class **server**.

Argument

Use the argument value to identify the specific server or actual destination that you want to shut down.

You can use these argument values with the **pdshutdown** command:



Specifies the server that you want to shut down.



Specifies the actual destination that you want to shut down.

Examples

- **Shut down a server**
To shut down server `Server1`, to abort all jobs that are currently printing, and to set a message, `Down for maintenance`, enter the command:

```
pdshutdown -w now -m "Down for maintenance" Server1
```
- **Shut down an actual destination**
To shut down actual destination `Serv9-fax`, enter the command:

```
pdshutdown -c destination Serv9-fax
```
- **Shut down a PSF physical printer and update job checkpoint data**
To shut down PSF physical printer `Serv9-pp` after synchronizing the printer with the currently printing job's checkpoint data, enter the command:

```
pdshutdown -c printer -s Serv9-pp
```

Note: The PSF physical printer must be able to communicate with the printer device to perform the synchronize function.

- **Shut down a PSF physical printer, update job checkpoint sata, and do NPRO**

To shut down PSF physical printer Serv9-pp after synchronizing the currently printing job's checkpoint data and do an NPRO, enter the command:

```
pdshutdown -c destination -s -n Serv9-pp
```

Suggested reading

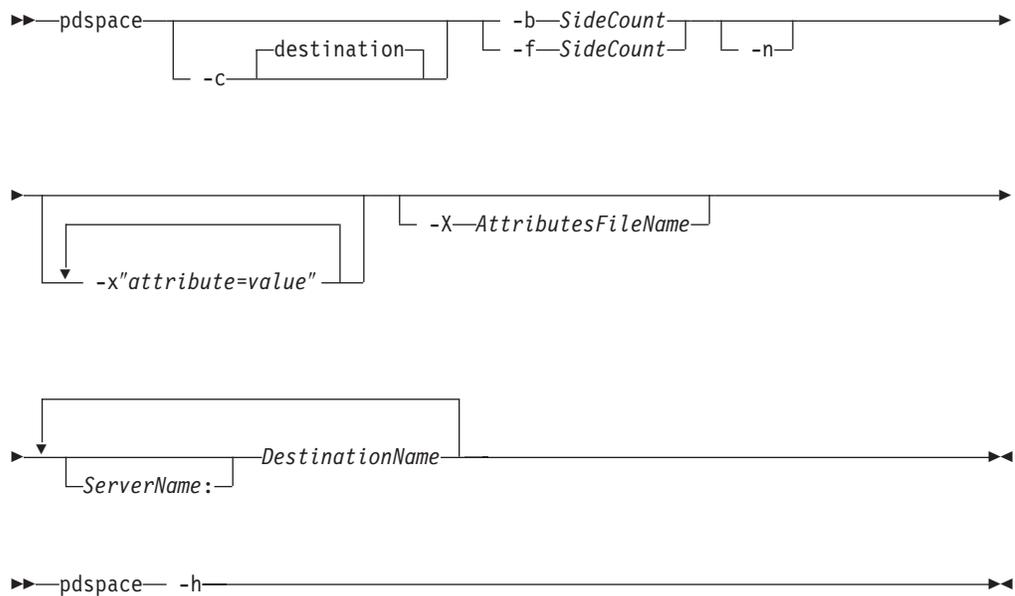
For information about:

- Attributes file, see "Attributes file" on page 18.

pdspace command: backspaces or forward spaces a printer

Syntax

pdspace command



Description

Use the **pdspace** command to backspace or forward space the job currently printing on the specified PSF physical printer a given number of sides. If the job is printing on one side of the medium, one side is equivalent to one sheet. If the job is printing on two sides of the medium (duplex), two sides are equivalent to one sheet.

Notes:

1. The functions of this command only apply to PSF IPDS actual destinations.
2. Before using the **pdspace** command, make sure that SNMP has been enabled on the printer.
3. While all PSF IPDS actual destinations support the **pdspace** command, installing the level of microcode especially written for backspacing or forward spacing makes sure that the printer stops quicker and the appropriate page prints. For example, the microcode that supports **pdspace** for the InfoPrint Pro

C900AFP, InfoPrint 2000 AFP, InfoPrint 3000, InfoPrint 4000, and InfoPrint 4100 printers stops the printers in less than five seconds after the **pdspace** is submitted.

4. You cannot backspace or forward space ASCII print jobs.

You can enter the **pdspace** command while the printer is stopped, paused, or running.

- If the printer has been stopped by pressing the **STOP** button on the printer device, the printer operator must press the **START** or **READY** button before the printer can start printing again. You cannot force a stopped printer to do a nonprocess runout (NPRO) by specifying the **-n** flag; but the operator can force an NPRO by pressing the **NPRO** button.
- If the printer has been paused with the **pdpause** command, you must enter the **pdresume** command before the printer can start printing again.
- If the printer is running, the **pdspace** command takes effect as soon as possible. However, some pages will continue to print before the command takes effect because the printer might not stop immediately.
- Another way to use the **pdspace** command for InfoPrint 3000, InfoPrint 4000, and InfoPrint 4100 follows:
 1. Stop the printer with the **pdpause** command.
 2. When the printer stops, specify **pdspace** and the backspace or forward space should be accurate from the last printed page.
 3. To begin printing again, enter the **pdresume** command.

The printer backspaces or forward spaces the number of sides you specify, except that:

- The printer will not backspace or forward space to the back side of a duplexed sheet. If a backspace or forward calculation points to the back side of a duplexed sheet, the printer backspaces or forward spaces to the front side of that sheet.
- When backspacing, if you specify a side count of -1, the job restarts printing on page 1 with a new header sheet.
- When backspacing, if you specify more sides than have already printed, the job restarts printing on page 1 without a header sheet.
- When forward spacing, if you specify more sides than there are sides left to print, the job terminates.

Notes:

1. InfoPrint backspaces or forward spaces from the last printed sheet: any count is one less than you would normally expect. For example, if you backspace ten sides starting at page 39, the job resumes on page 30 because page 39 is counted as one of the pages backspaced.
2. A backspace or forward space request is accepted for dpf-ipds jobs, but unpredictable results will occur.

Flags

You can use these flags with the **pdspace** command:

|— **-b**—*SideCount*—|

Specifies the number of sides to backspace before continuing to print. Using this flag is equivalent to specifying the command attribute **back-space**.

`-c destination`

Specifies the object class of **destination**, which represents a PSF physical printer. This is the only allowed class. Using this flag is equivalent to specifying the command attribute **class**.

`-f SideCount`

Specifies the number of sides to forward space before continuing to print. Using this flag is equivalent to specifying the command attribute **forward-space**.

`-n`

Causes the printer to do an NPRO (move the last printed page to the stacker) before restarting printing. An NPRO makes it easier to see exactly where the spacing took place. Using this flag is equivalent to specifying the command attribute **non-process-runout=true**.

`-x "attribute=value"`

Consists of a single attribute string, containing one or more attribute-value pairs.

`-X AttributesFileName`

Specifies the name of a file containing attribute and value pairs that you want InfoPrint to insert at the current point in the command. Using this flag is equivalent to specifying the command attribute **attributes**.

`-h`

Displays a command-specific help message containing information about command syntax and flags. If you use this flag with any other flag or attribute, InfoPrint recognizes only the **-h** flag.

Command attributes

You can define these attributes in a `-x "attribute=value ..."` string or in an attributes file designated in the `-X AttributesFileName` flag.

`attributes=AttributesFileName`

Specifies the designated attributes file that InfoPrint reads and inserts at the current point in the command. This file contains attribute and value pairs that InfoPrint uses to expand the command.

|—back-space=*SideCount*—|

Specifies the number of sides to backspace before continuing to print.

|—operation-class=*destination*—|

Specifies the object class of **destination**, which represents a PSF physical printer. This is the only allowed class.

|—forward-space=*SideCount*—|

- Specifies the number of sides to forward space before continuing to print.

Note: You cannot forward space from the beginning of a job; the job has to start to print before you can space. To start printing on a page other than page one, you can submit the job and hold it, and then use **Change Page Range to Process** on the Job menu in the InfoPrint Manager Administration GUI or the InfoPrint Manager Operations GUI. (However, **Change Page Range to Process** is not available in the GUIs by default, so you have to customize the GUIs to add it by clicking **Options** and then **Customize**.)

|—non-process-runout=*false*—|

Specifies whether the printer should do an NPRO (move the last printed sheet to the stacker) before restarting printing. An NPRO makes it easier to see exactly where the spacing took place.

Arguments

Use the argument value to identify the specific physical printer on which the job backspaces.

|—*ServerName*:*DestinationName*—|

Examples

- **Backspacing 22 sides**

To backspace the currently printing job on physical printer jrSrv-pp by 22 sides, enter the command:

```
pdspace -b22 jrSrv-pp
```

- **Forward spacing 22 sides**

To forward space the currently printing job on physical printer mySrv-pp by 22 sides, enter the command:

```
pdspace -f22 mySrv-pp
```

- **Forward spacing a paused printer 10 sides with NPRO**

To pause physical printer carlo-pp, forward space the job that was printing by 10 sides, move the last printed sheet to the stacker, and resume printing, enter the commands:

```
pdpause carlo-pp pdspace -f10 -n carlo-pp pdresume carlo-pp
```

- **Backspacing to a specific side**

To backspace exactly to page 62 in the job printing on physical printer mySrv-pp:

1. Use *one* of these methods to interrupt printing:

- Press the **STOP** button to stop the printer device.
- Enter this command to pause the physical printer:

```
pdpause mySrv-pp
```

2. At the operator viewing point, check to see what page was printing when the job stopped.

3. Calculate the number of sides to backspace. For example, if the job stopped at page 97:

$$97 - 62 + 1 = 36$$

You must add one because page 97 is counted as the first side to backspace.

4. Enter the command:

```
pdspace -b36 mySrv-pp
```

5. Use *one* of these methods to resume printing:

- If you pressed **STOP**, press **START** to restart the printer device.
- If you paused the physical printer, enter this command to resume it:

```
pdresume mySrv-pp
```

uconv command: convert encoding of character set

Syntax

uconv command

```
▶▶ uconv -f FromCode -t ToCode [FileName]
```

Description

Use the **uconv** command to convert the encoding of characters read from either standard input or the specified file from one coded character set (CCSID) to another and then write the results to standard output.

The **uconv** command follows the ICU (International Components for Unicode) standard. That is, it internally converts characters in *FromCode* coded character set to Unicode (UTF-16) before converting back to the *ToCode* coded character set. For more information about the ICU standard, including APIs that can be used with **uconv**, visit the ICU Web Site at <http://oss.software.ibm.com/icu>.

You can use the **listconv** command to show the available CCSIDs. For more information, see “listconv command: list all the default converters in CCSID” on page 22.

Flags

You can use these flags with the **uconv** command:

```
|— -f—FromCode—|
```

Specifies the coded character set in which the input data is encoded. The space between the **-f** flag and *FromCode* is required. The input data set should consist of characters in the coded character set identified by *FromCode*.

```
|— -t—ToCode—|  
|— FileName—|
```

Specifies the code page in which the output data is encoded. The space between the **-t** flag and *ToCode* is required.

If *FileName* is not specified, **uconv** reads from the standard input.

Exit status

The **uconv** command returns these exit statuses:

- 0 Input data successfully converted.
- 1 File cannot be opened.
- 2 Code set converter is not supported.
- 3 Bad block size.
- 4 Unknown callback

Examples

To convert the contents of the `ibm850.txt` file from coded character set IBM-850 to UTF-16 and store the results in `utf.tmp` file, enter:

```
uconv -f IBM-850 -t UTF-16 ibm850.txt > utf.tmp
```

To convert an ASCII coded character set to an EBCDIC coded character set, open a Command Prompt window and type:

```
uconv -f 850 -t 500 input.txt > output.txt
```

To convert a Japanese ASCII coded character set to a Japanese EBCDIC coded character set, open a Command Prompt window and type:

```
uconv -f 932 -t 939 input_jpn.txt > output_jpn.txt
```

The -o flag for AIX print commands and the InfoPrint Manager **lprafp** command

As well as the InfoPrint **pdpr** and **lprafp** commands, you can use the AIX print commands, **enq**, **lp**, and **qprt**, to print jobs.

AIX uses the **-o** flag on the AIX print commands and on the InfoPrint **lprafp** command to pass information to the backend program. This program handles the details of printing or sending your job.

-o flag not valid on pdpr command

You cannot use the **-o** flag on the InfoPrint **pdpr** command, nor can you use it to specify InfoPrint object attributes. Use the **-o** keywords only on the AIX print commands **enq**, **lp**, and **qprt** and on the InfoPrint **lprafp** command.

Similar or equivalent InfoPrint object attributes are listed for each **-o** flag keyword. Use these attributes only on the **pdpr** command.

To pass flags or options to a transform command when you submit DBCS ASCII, EUC, GIF, JPEG, line-data, PCL, PDF, PostScript, or TIFF files with the **pdpr** command, use the InfoPrint **other-transform-options** document attribute instead of the **-o** flag.

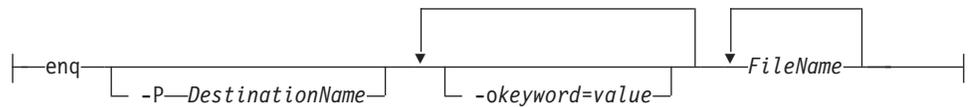
This information is provided for the **-o** flag for the AIX command:

- “Syntax for the **-o** flag”
- “Description for the **-o** flag”
- “Limitations for the **-o** flag” on page 142
- “The **-o** flag” on page 142
- “Examples for the **-o** flag” on page 174

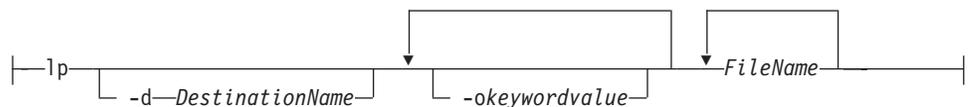
Syntax for the -o flag

You can use any one of these AIX commands to submit an InfoPrint job:

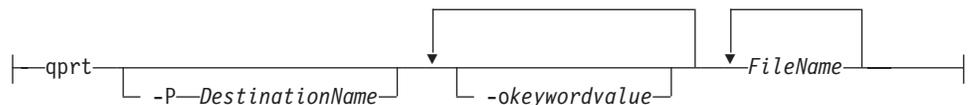
•



•



•



Description for the -o flag

The AIX print commands (**enq**, **lp**, and **qprt**) enqueue requests to a shared system resource. For InfoPrint, this resource is a printer device, fax device, or electronic mailing system.

Limitations for the -o flag

If you specify a data type value that causes an InfoPrint transform program to be run before the file is printed on a PSF physical printer, the transform program writes the MO:DCA-P output to a temporary file in the directory specified by the **PDBASE** environment variable or in one of its subdirectories. No single user can create a MO:DCA-P file larger than the amount of free space in the file system containing this directory. If many users are submitting jobs that invoke transform programs, the directory might fill up and prevent all users from successfully running the transform programs.

The -o flag

The AIX print commands use these flag to pass information to InfoPrint:



Is the information to be passed to InfoPrint. You can specify as many keyword-value pairs in the AIX print command as you like, provided that each of them starts with the **-o** flag.

Note: You can specify other flags associated with the AIX print commands or with the **lprafp** command, for example, the **-N** flag (number of copies) of the **enq** and **qprt** commands. Some of these flags are equivalent to the **-o** values you can specify with the AIX print commands.

For information about the other flags for the **enq**, **lp**, and **qprt** commands, see the appropriate man page or to *AIX for RS/6000 Commands Reference*.

For information about the other flags for the **lprafp** command, see “**lprafp** command: submits remote jobs in InfoPrint Manager for AIX” on page 24.

Specifying -o attribute-value pairs

In InfoPrint, options appear as strings after the **-o** flag in the format *keyword=value*. For example,

```
enq -P DestinationName -obin=2 -oduplex=no FileName
```

Consider these situations when using **-o** with an AIX print command or with the **lprafp** command:

- The **-o** flag is not valid on the **pdpr** command. Use the similar or equivalent InfoPrint attributes listed for each **-o** keyword.
- Do not specify InfoPrint attributes with the **-o** flag.
- All **-o** keywords override the equivalent flags specified with the print commands (such as the **-N** flag of the **enq** and **qprt** commands).
- If you specify the same keyword with the **-o** flag multiple times, InfoPrint uses only the value of the last occurrence.
- When using keywords with the **-o** flag, you can use blanks between the keyword and the **-o** flag (for example **-o bin=1**). You cannot, however, use blanks between the keyword and the value (for example, **-o bin=1** is valid;

-o bin = 1 is not). Values that have blanks must be enclosed with single quotes or double quotes (for example, **-odocname="Tim Memo"**).

- When using another flag with the **-o** flag, you cannot use blanks between the second flag and its value. For example, **-o-w6i** is valid; **-o-w 6i** is not.
- The keywords used with the **-o** flag are *not* case-sensitive. For example, **-o BIN=1** and **-o bin=1** are both valid.
- Values for some keywords (such as path names or form definition names), are case-sensitive; for example:

```
enq -P3900A -oformdef=F100S /usr/lpp/psf/README
```

and

```
enq -P3900A -oformdef=F100S /usr/lpp/psf/readme
```

specify two different files to submit, just as:

```
enq -P3900A -osfo=/usr/lpp/psf/VMfonts myfile
```

and

```
enq -P3900A -osfo=/usr/lpp/psf/vmfonts myfile
```

specify two different directories to search for fonts.

In addition, the first example below is valid and the second one is not because the **-F** keyword used with the **ps2afp** command must be uppercase.

```
enq -P3900A -odatatype=postscript -o-FFontMapFile
```

```
enq -P3900A -odatatype=postscript -o-fFontMapFile
```

- These flags show the minimum version of the keyword, as well as the complete keyword. For example, you can abbreviate the **-obin** keyword to two letters: **-obi**.

-o attribute-value pairs

You can use these keyword-value pairs with the AIX print commands **enq**, **lp**, or **qprt**, or with the **lprafp** command, to pass information to InfoPrint.

```
| -oac _____ = account _____ |  
|   -oaccount   |
```

- Specifies the account information that InfoPrint prints on start, end, and separator sheets. The account information can also be used for audit and accounting purposes.

This command keyword is equivalent to the InfoPrint document attribute **account-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

account

Any 1 to 20 characters of account information.

```
| -oaddress1=address1 _____ |
```

- Specifies the first line of address information that InfoPrint prints on start, end, and separator sheets. The address information can also be used for audit and accounting purposes.

This command keyword is equivalent to the InfoPrint document attribute **address1-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

address1

Any 1 to 90 characters of address information.

|— -oaddress2=*address2*—|

- Specifies the second line of address information that InfoPrint prints on start, end, and separator sheets. Other information is the same as for **-oaddress1**.

This command keyword is equivalent to the InfoPrint document attribute **address2-text**.

|— -oaddress3=*address3*—|

- Specifies the third line of address information that InfoPrint prints on start, end, and separator sheets. Other information is the same as for **-oaddress1**.

This command keyword is equivalent to the InfoPrint document attribute **address3-text**.

|— -oaddress4=*address4*—|

- Specifies the fourth line of address information that InfoPrint prints on start, end, and separator sheets. Other information is the same as for **-oaddress1**.

This command keyword is equivalent to the InfoPrint document attribute **address4-text**.



- Determines the input bin used for the job. This keyword overrides the value specified in the form definition. If you do not specify the **-obin** keyword, InfoPrint uses the bin value specified in the form definition you provide for printing the job. If you do not specify the **-obin** keyword and you use the default form definition to print your job, the input bin value in the printer profile or in that form definition is used.

This command keyword is similar to the InfoPrint document attribute **default-input-tray**.

Values are:

- 1 Selects the primary bin for the printer device. This is the default.

2 to 255

You can specify bin 2 to bin 255. See your printer documentation for more information about the bins available on the printer device.

65 Selects the envelope bin on certain printer devices.

100 Selects manual feed on certain printer devices.



- Specifies the building information that InfoPrint prints on start, end, and separator sheets. The building information can also be used for audit and accounting purposes.

This command attribute is equivalent to the InfoPrint document attribute **building-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

building

Any 1 to 90 characters of building information.



- Specifies the ASCII input code page used for the job; that is, the “keyboard” code that InfoPrint uses to translate the ASCII code points it finds in the job.

This command attribute is similar to the InfoPrint document attribute **default-character-mapping**.

Values are:

850 Defaults to the IBM code page 850.

nnn Other possible input code page values are 437 (a subset of the IBM code page 850), 860 (Portuguese), 863 (French Canadian), or 865 (Nordic); however, none of these IBM code pages are directly supported by AIX. If you are using a different ASCII code page as your keyboard code page, you can select 437, 860, 863, or 865, depending on which code page is the closest match to the one you are currently using.

Notes:

1. This parameter is used only for ASCII jobs. If you specify **-odatatype=dbsascii**, InfoPrint ignores the value you specify for the **-ocodepage** keyword and value.
2. The InfoPrint ASCII data type does not support the non-U.S. code pages supported by AIX (for example, IBM 932 and the variations of ISO8859). InfoPrint supports code pages 437, 860, 863, and 865 so that you can select the code page that most closely matches the one you are currently using, if you are located outside the United States and using the ASCII data type.

- If you are printing single-byte ASCII code points that are part of code page 943 (Japan), 950 (Traditional Chinese), or an Extended UNIX Code (EUC) code set for Japan, China, or Korea, you must use the **db2afp** command to print the file, even though the entire file is single-byte ASCII.



- Specifies the number of copies of the job. If you also specify one of the copy flags for the AIX print command (the **-N** flag of the **enq** and **qprt** commands, or the **-n** flag of the **lp** command), the value you specify with the **-ocopies** keyword overrides the value specified with the **-N** or **-n** flag.

This command keyword is equivalent to the InfoPrint document attribute **copy-count**.

Values are:

- 1** The minimum number of copies. This is the default.
- 255** The maximum number of copies.



- Determines what type of errors in the job cause InfoPrint to issue error messages.

This command keyword is similar to the InfoPrint document attribute **data-fidelity-problem-reported**.

The value you assign to this keyword can significantly affect IPDS™ printer performance as described in this list.

Values are:

- block** Block print-positioning errors and invalid-character errors; that is, do not report these errors or issue error messages for these types of errors. This value produces the best printer performance.

Print-positioning errors occur when the printer device tries to print outside the valid printable area of the form. Invalid-character errors include attempts to use a code point that is not assigned to a character in an AFP font.

block is the default.

blkchar

Block invalid-character errors; that is, do not report these errors. However, InfoPrint reports print-positioning errors and issues error messages for them.

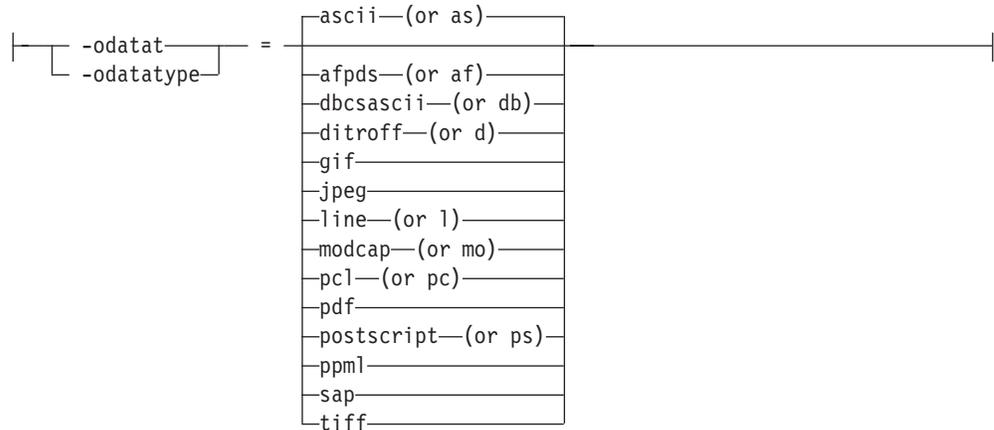
blkpos

Block print-positioning errors; that is, do not report these errors. However, InfoPrint reports invalid-character errors and issues error messages for them.

unblock

Report all print-positioning errors and invalid-character errors. If the job has many errors, selecting **unblock** could decrease your IPDS printer

device's performance because of the constant communication between the printer device and InfoPrint, and because of the repositioning that must occur to continue printing the next page after the page containing the error. You might use this value when diagnosing problems with InfoPrint.



- Specifies the type of the input data stream. If you do not specify the `-odatatype` keyword, InfoPrint reads the first few lines of the file to determine if the file is an AFP data stream. If InfoPrint does not find AFP data stream commands in the file, it assumes a data type of ASCII.

If you are printing PostScript, ditroff, S/370™ line data, PCL, double-byte character set (DBCS) ASCII, Extended UNIX Code (EUC) on a PSF physical printer, or if you are printing ASCII data that you want to format with a page definition on a PSF physical printer, specifying the particular data type alerts InfoPrint to execute the appropriate transform command (such as **ps2afp**, **d2afp**, **line2afp**, **pcl2afp**, **ppm12afp**, or **db2afp**) before printing the file. In this way, you can specify transform-specific options with the `-o` flag. See “-o keywords and values for specific data types” on page 159 for more information.

This command keyword is equivalent to the InfoPrint document attribute **document-format**.

Values are:



- The type of data is an ASCII data stream with embedded controls for an InfoPrint 4201-2 Proprinter or 5202 printer. You can also specify ascii to print “flat” ASCII (no embedded formatting controls except for newline characters) without using a page definition.
ascii is the default.



The type of data is an Advanced Function Presentation™ data stream.



The type of data is Graphical Interchange Format.

|—jpeg—|

The type of data is Joint Photographic Experts Group.

|—dbsascii—(or db)—|

- The type of data is double-byte character set (DBCS) ASCII for Japanese or Traditional Chinese, or Extended UNIX Code (EUC) for Japanese, Traditional Chinese, or Korean. DBCS ASCII can contain controls for an InfoPrint 5577 or 5587 printer. When you specify this value, InfoPrint automatically runs the **db2afp** command to transform the DBCS ASCII or EUC into printable AFP data. InfoPrint ignores any values specified with the **-ocodepage** flag and keyword.

If you are printing EUC data, you must also specify **-o-e** (the **db2afp -e** flag) along with **-odatatype=dbsascii**.

|—ditroff—(or d)—|

- The type of data is ditroff, which is a device-independent data stream (troff files that have been formatted for InfoPrint using the **troff -Tafp** command). When you specify this value, InfoPrint automatically runs **d2afp** to transform the ditroff into printable AFP data.

|—line—(or l)—|

- The type of data is S/370 line data or is ASCII data that you want to format with a page definition. When you specify this value, InfoPrint automatically runs **line2afp** to transform the ASCII or line data into printable AFP data.

Note: If the input file is ASCII, but you want to use fonts that have EBCDIC code points, you must also specify a **line2afp** input exit program to convert the ASCII file to EBCDIC. InfoPrint supplies two input exit programs that perform this function:

- **/usr/lpp/psf/bin/apka2e**, which is appropriate for ASCII files that only contain line feed controls (not carriage returns and form feeds)
- **/usr/lpp/psf/bin/asciinpe**, which is appropriate for ASCII files that contain line feed, carriage returns, and form feeds.

You specify an exit program using the **-oinpexit** keyword-value pair on the AIX print command.

|—modcap—(or mo)—|

The type of data is a Mixed Object: Document Content Architecture for Presentation data stream.

|—pcl—(or pc)—|

The type of data is PCL. When you specify this value, InfoPrint automatically runs **pcl2afp** to transform the PCL into printable AFP data.

|—pdf—|

The type of data is PDF. When you specify this value, InfoPrint automatically runs **pdf2afp** to transform the PDF into printable AFP data.

|—postscript—(or ps)—|

The type of data is PostScript. When you specify this value, InfoPrint automatically runs **ps2afp** to transform the PostScript into printable AFP data.

|—ppml—|

The type of data is a Personalized Print Markup Language (PPML) data stream.

|—sap—|

– The type of data is an OTF data stream.

You cannot submit ABAP List Format files with the **-odatatype=sap** flag and keyword-value pair. If you submit an ABAP List Format file, InfoPrint will convert it to line data, try to print it, and fail. You must first use **sap2afp** to convert the ABAP List Format file to line data, then submit it with the **-odatatype=line** flag and keyword-value pair.

|—tiff—|

The type of data is Tag Image File Format.

|—ode— = *department*—
|—odepartment—|

- Specifies the department information that InfoPrint prints on start, end, and separator sheets. The department information can also be used for audit and accounting purposes.

This command keyword is equivalent to the InfoPrint document attribute **department-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

department

Any 1 to 90 characters of department information.

|—odi— = *distribution*—
|—odistribution—|

- Specifies the distribution information that InfoPrint prints on start, end, and separator sheets.
If you do not specify the **-odistribution** keyword for local jobs, no distribution information prints. For remote jobs, the value defaults to the information provided by AIX (usually the user ID and the name of the host from which the job was submitted; for example, **bob@sys1**).

The value is:

distribution

Any 1 to 90 characters of distribution information. Whether all of these characters print depends on the user exit program.



- Identifies the document name or job name associated with this job. If you do not specify the **-odocname** or **-ojobname** keyword for ASCII or AFP data stream jobs, InfoPrint uses the file name of the first file in the job.

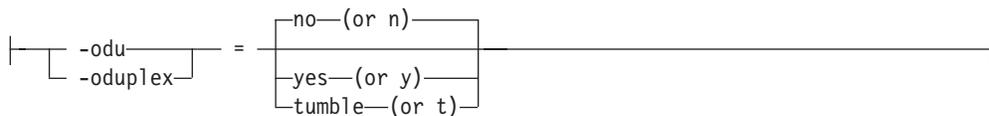
If you do not specify the **-odocname** keyword for other types of data, InfoPrint creates a temporary file for the transform output and uses that temporary file name for the job name. To retain the original name of the input file for these types of data, you can specify a job name with this keyword.

The **-odocname** command keyword is equivalent to the InfoPrint document attribute **document-file-name**. The **-ojob** command keyword is equivalent to the InfoPrint job attribute **job-name**.

The value is:

JobName

You can enter a job name of up to 255 characters. The user-exit programs supplied with the start, end, and separator sheets assume a maximum of 50 characters for the job name. To display more than 50 characters, change the user-exit programs to use the number of characters you need. Use single quotes (') or double quotes (") if the document name or job name contains spaces (blanks).



- Specifies whether the job prints on one or both sides of the paper and how successive pages are oriented. This keyword overrides the value specified in the form definition. If you do not specify the **-oduplex** keyword, InfoPrint uses the duplex printing value specified in the form definition you provide for printing the job. If you do not specify the **-oduplex** keyword and you use the default form definition to print your job, the duplex printing value in the printer profile or in that form definition is used.

This command keyword is similar to the InfoPrint document attributes **plex** and **sides**.

Values are:

no or n

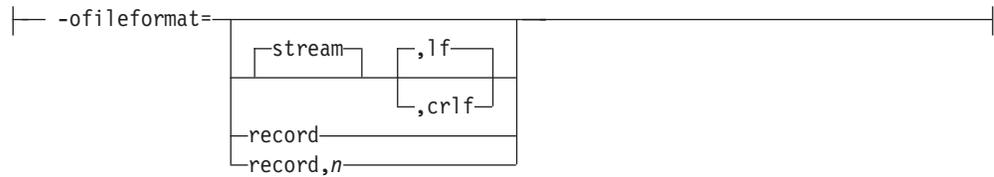
The job prints on one side of the sheet. This is the default.

yes or y

The job prints on both sides of the sheet, top edge to top edge.

tumble or t

The job prints on both sides of the sheet. The top edge of one side is the bottom edge of the other side.



- Specifies the format of the input file. If you do not specify **-ofileformat**, **stream** is the default.

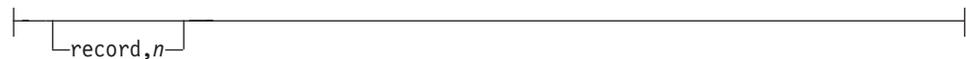
This flag is only valid when used with a data type of line data.

For information about how to specify the correct file format and how to transfer files to ACIF from AIX and Windows, see “Appendix A: Helpful Hints” in the *AFP Conversion and Indexing Facility: User’s Guide*, S544-5285.

Values are:



The input file is formatted in S/390[®] record format, where the first two bytes of each line specify the length of the line. Files with **record** format typically are z/OS or VM files that have a variable record format and are downloaded to AIX or Windows.



The input file is formatted in such a way that each record (including AFP data stream and MO:DCA-P records) is a fixed length, *n* bytes long. The value of *n* is a number from 1 to 32767. The encapsulated size of the AFP structured field must be less than the size of *n*. Files with **record,n** format typically are z/OS or VM files that have a fixed record format and are downloaded to AIX or Windows.



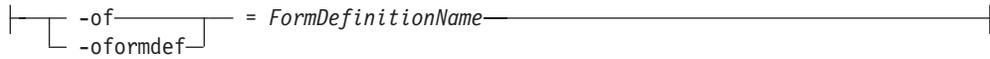
- The input file has no length information; it is a stream of data separated by one or more newline characters. The AFP portion (if any) of the input file has its length information encapsulated in the structured field. Files with **stream** format typically come from a workstation operating system, such as AIX or Windows. The encoding of the **lf** and **cr1f** characters is determined by the **-onewlineencoding** flag.

Subparameters

- lf** This subparameter identifies the newline character sequence. **lf** indicates that the newline character is a line feed. Files with **stream,lf** are typically files from a workstation running a Unix operating system like AIX, Linux[®], or HP-UX.
- cr1f** This subparameter identifies the newline character sequence. **cr1f** indicates that the new line character sequence is a carriage return followed by a line feed. Files with **stream,cr1f** are typically files from a workstation running a Windows or DOS operating system.

stream is the default.

This option is equivalent to the **new-line-options** document attribute on the **pdpr** command.



- Specifies the name of the form definition InfoPrint uses for the job. The form definition defines the placement of the page of data on the form, the input and output bins to use, duplex printing, and so on.

If you do not specify the **-oforndef** keyword, InfoPrint looks in the input file for an inline form definition. If the input file doesn't contain a form definition, InfoPrint uses the default form definition for that InfoPrint actual destination.

This command keyword is equivalent to the InfoPrint document attribute **form-definition**.

The value is:

FormDefinitionName

Any form definition located in one of the directories defined in the search path.

You can specify a form definition name between 1 and 8 characters in length.



- Specifies whether InfoPrint prints a start sheet before the job. This command keyword is similar to the InfoPrint job attribute **auxiliary-sheet-selection**.

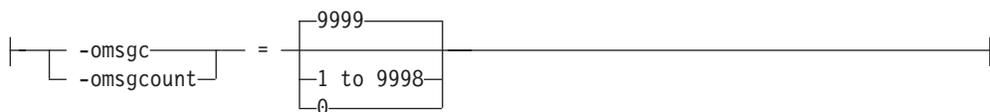
Values are:

yes or y

Print the start sheet specified by the actual destination attribute **printer-start-sheet** before the job. If there are multiple files in a single job, a start sheet is printed before the first file only. This is the default.

no or n

Do not print a start sheet.



- Specifies the number of messages or groups of related messages that InfoPrint prints with the job. A message group consists of one error or warning message, followed by one or more secondary messages.

This command keyword is similar to the InfoPrint document attribute **maximum-messages-printed**.

Values are:

9999 All messages print. This is the default.

1 to 9998

A specified number of messages print.

0

No messages print.

Note: When InfoPrint reaches the message count value, InfoPrint processing continues; however, InfoPrint prints no additional messages.



- Specifies the name information that InfoPrint prints on start, end, and separator sheets. The name information can also be used for audit and accounting purposes.

This command keyword is equivalent to the InfoPrint document attribute **name-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

name Any 1 to 90 characters of name information.



- Specifies the encoding for the newline character specified with the **-ofileformat** flag.

This flag is only valid when used with a data type of line data.

This command keyword is similar to the InfoPrint document keyword **new-line-option-data-encoding**.



- Specifies the node ID information that InfoPrint prints on start, end, and separator sheets. The node ID information can also be used for audit and accounting purposes.

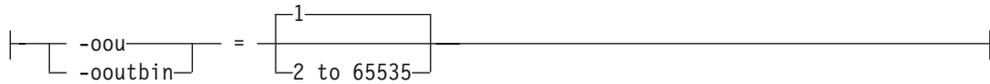
This command keyword is equivalent to the InfoPrint document attribute **node-id-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

NodeID

Any 1 to 20 characters of nodeid information.



- Determines the output bin used for the job. If you do not specify the **-ooutbin** keyword, the output bin value in the printer profile is used.

This command keyword is similar to the InfoPrint document attribute **output-bin** and the InfoPrint actual destination attribute **output-bin-numbers**.

Values are:

1 Selects the primary output bin for the printer device. This is the default.

2 to 65535

You can specify bin 2 to bin 65535. See your printer documentation for more information about the bins available on the printer device.



- Specifies the name of an overlay to be printed on every page of the job. Overlays can also be specified in a form definition. Any overlay you name here is printed in addition to overlays named in the form definition.

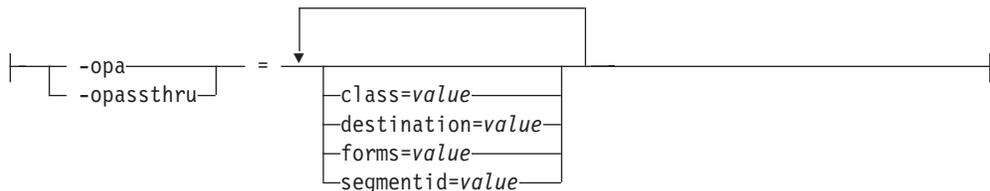
This command keyword is equivalent to the InfoPrint document attribute **overlay**.

The value is:

OverlayName

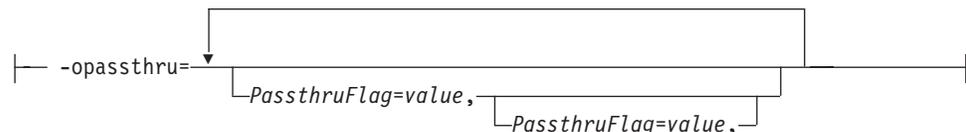
Any overlay located in one of the directories defined in the search path.

You can specify an overlay name between 1 and 8 characters.



- Identifies any other information provided when the job is submitted.

You specify this information in this format:



These flags are supported by the user-exit programs supplied with InfoPrint:

class Identifies the 1-character class keyword provided by TCP/IP for MVS for those jobs submitted to InfoPrint from MVS hosts through the Network Print Facility (NPF), or MVS Download.

destination

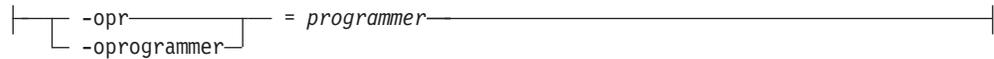
Identifies the 1-to 8-character destination keyword provided for those jobs submitted to InfoPrint from MVS hosts through the Network Print Facility (NPF), or MVS Download.

forms Identifies the 1-to 8-character forms keyword provided for those jobs submitted to InfoPrint from MVS hosts through the Network Print Facility (NPF), or MVS Download.

segmentid

Identifies the 1-to 10-character segmentation identifier provided by TCP/IP for MVS for those jobs submitted to InfoPrint from MVS hosts through the Network Print Facility (NPF), or MVS Download.

This command keyword is equivalent to the InfoPrint document attributes **mvs-class**, **mvs-destination**, **mvs-forms**, and **mvs-segment-id**.



- Specifies the programmer information that InfoPrint prints on start, end, and separator sheets. The programmer information can also be used for audit and accounting purposes.

This command keyword is equivalent to the InfoPrint document attribute **programmer-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

programmer

Any 1 to 40 characters of programmer information.



- Specifies the search order that InfoPrint uses for all Advanced Function Printing™ (AFP) resources.

This command keyword is equivalent to the InfoPrint document attribute **resource-context-user**.

If you specify this keyword, InfoPrint adds this hierarchy of search orders after the *PathList* that you specify:

– For fonts:

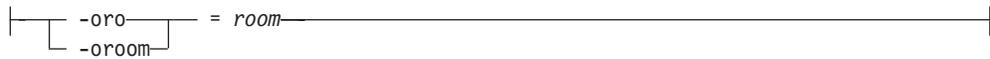
1. The paths named in the **-osrchfontlib** keyword
2. The paths named in the InfoPrint default document attribute **resource-context-user**
3. The paths named in the InfoPrint default document attribute **resource-context-font**
4. The paths named in the InfoPrint default document attribute **resource-context**
5. The paths named in the **PSFPATH** environment variable
6. The paths named in the InfoPrint actual destination attribute **resource-context-font**
7. The directory **/usr/lpp/psf/reslib**
8. The directory **/usr/lpp/ipfonts**
9. The directory **/usr/lpp/afpfonts**
10. The directory **/usr/lpp/psf/fontlib**

- For other resources:
 1. The paths named in the InfoPrint default document attribute **resource-context-user**
 2. The paths named in the InfoPrint default document attributes **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, or **resource-context-page-segment**,
 3. The paths named in the InfoPrint default document attribute **resource-context**
 4. The paths named in the **PSFPATH** environment variable
 5. The paths named in the InfoPrint actual destination attributes **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, or **resource-context-page-segment**,
 6. The directory **/usr/lpp/psf/reslib**

If you do not specify this keyword, InfoPrint uses the search orders listed above.
The value is:

PathList

Any valid search path on the system where the job prints. You must use a colon (:) to separate multiple paths.



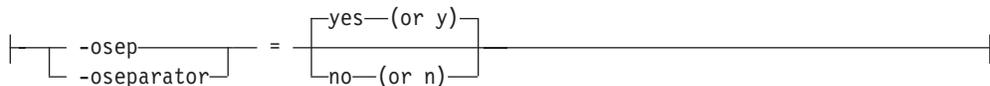
- Specifies the room information that InfoPrint prints on start, end, and separator sheets. The room information can also be used for audit and accounting purposes.

This command keyword is equivalent to the InfoPrint document attribute **room-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

room Any 1 to 90 characters of room information.

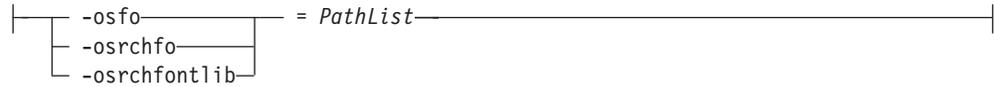


- Specifies whether InfoPrint prints separator sheets between copies of the job. This command keyword is similar to the InfoPrint job attribute **auxiliary-sheet-selection**.

Values are:

or y Print the separator sheet specified by the actual destination attribute **printer-separator-sheet** between copies of the job. This is the default.

no{ or n
Do not print separator sheets.



- Specifies one or more paths InfoPrint searches for the fonts required by the job. This command keyword is equivalent to the InfoPrint document attribute **resource-context-font**.

If you do not specify this keyword, InfoPrint uses this search order:

1. The paths named in the **-orespath** keyword
2. The paths named in the InfoPrint default document attribute **resource-context-user**
3. The paths named in the InfoPrint default document attribute **resource-context-font**
4. The paths named in the InfoPrint default document attribute **resource-context**
5. The paths named in the **PSFPATH** environment variable
6. The paths named in the InfoPrint actual destination attribute **resource-context-font**
7. The directory **/usr/lpp/psf/reslib**
8. The directory **/usr/lpp/ipfonts**
9. The directory **/usr/lpp/afpfonts**
10. The directory **/usr/lpp/psf/fontlib**

The value is:

PathList

Any valid search path on the system where the job prints. You must use a colon (:) to separate multiple paths.

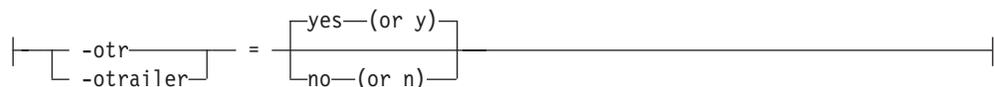


- Specifies the title information that InfoPrint prints on start, end, and separator sheets. The title information can also be used for audit and accounting purposes. This command keyword is equivalent to the InfoPrint document attribute **title-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

title Any 1 to 90 characters of title information.



- Specifies whether an end sheet prints after the job. This command keyword is similar to the InfoPrint job attribute **auxiliary-sheet-selection**.

Values are:

yes or y

Print the end sheet specified by the actual destination attribute **printer-end-sheet** after the job. This is the default.

no or n

Do not print an end sheet.

`-ous` = *UserID*
`-ouserid`

- Specifies the user ID information that InfoPrint prints on start, end, and separator sheets. The user ID information can also be used for audit and accounting purposes.

This command keyword is equivalent to the InfoPrint document attribute **user-id-text**.

You must specify a value of **full** for one of the InfoPrint actual destination auxiliary sheet attributes (**accounting-exit**, **audit-exit**, **printer-start-sheet**, **printer-end-sheet**, or **printer-separator-sheet**) for InfoPrint to use this information.

The value is:

UserID

Any 1 to 20 characters of userid information.

`-oxo` = *nnnn.nnnu*
`-oxoffset`

- Specifies the X offset of the logical page origin from the physical page origin. This keyword overrides any X offset value in the form definition. If you do not specify the **-oxoffset** keyword, InfoPrint uses the X offset value specified in the form definition you provide for printing the job.

This command keyword is equivalent to the InfoPrint document attribute **x-image-shift**.

The value is:

nnnn.nnnu

A numeric value that establishes the X (across) coordinate of the logical page origin, as shown in the figure below. *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (*i*) or millimeters (*m*).

If you do not specify a unit (*i* or *m*), then InfoPrint uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

Note: If you specify a value that is outside of the printable area, you will get a print-positioning error. To determine the printable area of printer devices, see *Advanced Function Presentation: Printer Information*.

`-oyo` = *nnnn.nnnu*
`-oyoffset`

- Specifies the Y offset of the logical page origin from the physical page origin. This keyword overrides any Y offset value in the form definition. If you do not specify the **-oyoffset** keyword, InfoPrint uses the Y offset value specified in the form definition you provide for printing the job.

This command keyword is equivalent to the InfoPrint document attribute **y-image-shift**.

The value is:

nnnn.nnnu

Any numeric value that establishes the Y (down) coordinate of the logical page origin. *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (*i*) or millimeters (*m*).

If you do not specify a unit (*i* or *m*), InfoPrint uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

Note: If you specify a value that is outside of the printable area, you will get a print-positioning error. To determine the printable area of printer devices, see *Advanced Function Presentation: Printer Information*.

-o keywords and values for specific data types

You can also use **-o** to specify keywords (transform command flags or options) that apply to these specific data types:

- Double-byte character set (DBCS) ASCII data
- Extended UNIX code (EUC) data
- Graphical Interchange Format (GIF) data
- Joint Photographic Experts Group (JPEG) data
- Line data
- PCL data
- Portable Document Format (PDF) data
- PostScript data
- Tag Image Format File (TIFF) data

For example, to specify that the finished width of a PostScript image is 6 inches, enter:

```
enq -P3825C -odatatype=ps -o-w6i memo1.ps
```

DBCS ASCII data and EUC data:

If you are printing DBCS (double-byte) ASCII or Extended UNIX Code (EUC) data:

- Specify **-odatatype=dbcsascii** for DBCS ASCII or **-odatatype=dbcsascii -o-e** for EUC with the **enq**, **lp**, **qprt**, or **lprafp** command; or allow InfoPrint to identify the data type.
- InfoPrint automatically runs the **db2afp** transform command.
- You can use these **db2afp** flags on the command line with **enq**, **lp**, **qprt** or **lprafp**:
 - **-o-e**
 - **-o-lja**
 - **-o-lch**
 - **-o-lko** (EUC only)

For information about these flags, see “db2afp Command: transforms DBCS data to AFP” on page 268.

You cannot use the **db2afp -o** flag to specify an output file.

Note: The **db2afp** transform must be installed on the workstation where InfoPrint is installed.

GIF data:

If you are printing GIF data:

- Specify **-odatatype=gif** with the **enq**, **lp**, **qprt**, or **lprafp** command; or allow InfoPrint to identify the data type.
- InfoPrint automatically runs the **gif2afp** transform command.
- You can use these **gif2afp** options on the command line with **enq**, **lp**, **qprt**, or **lprafp**. For those options that accept a value, do not put a blank between the option and the value.

-

|— *-o-aImageType*—————|

-

|— *-o-algProcessingAlgorithms*—————|

-

|— *-o-calibcalibration*—————|

-

|— *-o-CConfigurationFile*—————|

-

|— *-o-cleancleanup*—————|

-

|— *-o-cmpcompression*—————|

-

|— *-o-cmrcolorResourceName*—————|

-

|— *-o-cropCropFactors*—————|

-

|— *-o-fit*

trim
scale

—————|

-

|— *-o-gcorrGrayscaleMappingTable*—————|

-

|— *-o-inkcolor*—|

—

|— *-o-inv*—|

—

|— *-o-jScanOffsetFileName*—|

—

|— *-o-lImageLength*—|

—

|— *-o-MMemoryBound*—|

—

|— *-o-msspace*—|

—

|— *-o-msfSpaceFraction*—|

—

|— *-o-nosniff*—|

—

|— *-o-noterm*—|

—

|— *-o-nov*—|

—

|— *-o-outbitsNumberOfOutputBits*—|

—

|— *-o-outcolorOutputColorModel*—|

—

|— *-o-pPageRange*—|

—

|— *-o-pagetypePageType*—|

—

```

| -o-paperPaperSize |
-
| -o-rresolution |
-
| -o-respathResourceSearchPath |
-
| -o-rotrotation |
-
| -o-scaleImageSize |
-
| -o-sgcorrScannerCorrection |
-
| -o-sniff |
-
| -o-tag | none |
|         | normal |
|         | passthru |
-
| -o-term |
-
| -o-threshHalftoneFile |
-
| -o-v |
-
| -o-wImageWidth |
-
| -o-xLeftMargin |
-

```

|— *-o-yTopMargin*—|

For information about these options, see “gif2afp command: transforms GIF data to AFP” on page 275.

You cannot use the print command **-o** flag to pass the **gif2afp -o** option to specify an output file, or the **@**, **-f**, and **-z** options to specify input files.

Note: The **gif2afp** transform must be installed on the workstation where InfoPrint is installed.

JPEG data:

If you are printing JPEG data:

- Specify **-odatatype=jpeg** with the **enq**, **lp**, **qprt**, or **lprafp** command; or allow InfoPrint to identify the data type.
- InfoPrint automatically runs the **jpeg2afp** transform command.
- You can use these **jpeg2afp** options on the command line with **enq**, **lp**, **qprt**, or **lprafp**. For those options that accept a value, do not put a blank between the option and the value.

—

|— *-o-aImageType*—|

—

|— *-o-algProcessingAlgorithms*—|

—

|— *-o-calibcalibration*—|

—

|— *-o-CConfigurationFile*—|

—

|— *-o-cmpcompression*—|

—

|— *-o-cropCropFactors*—|

—

|— *-o-cmrcolorResourceName*—|

—

|— *-o-fit*

trim
scale

—|

—

|— -o-force—|
—
|— -o-gcorrGrayscaleMappingTable—|
—
|— -o-jScanOffsetFileName—|
—
|— -o-lImageLength—|
—
|— -o-MMemoryBound—|
—
|— -o-msspace—|
—
|— -o-msfSpaceFraction—|
—
|— -o-noterm—|
—
|— -o-nov—|
—
|— -o-outbitsNumberOfOutputBits—|
—
|— -o-outcolorOutputColorModel—|
—
|— -o-pPageRange—|
—
|— -o-pagetypePageType—|
—
|— -o-paperPaperSize—|
—

```

|— -o-rresolution—|
-
|— -o-respathResourceSearchPath—|
-
|— -o-rotrotation—|
-
|— -o-scaleImageSize—|
-
|— -o-sgcorrScannerCorrection—|
-
|— -o-tag—|
|   none—|
|   normal—|
|   passthru—|
-
|— -o-term—|
-
|— -o-threshHalftoneFile—|
-
|— -o-v—|
-
|— -o-wImageWidth—|
-
|— -o-wrkdirWorkDirectory—|
-
|— -o-xLeftMargin—|
-
|— -o-yTopMargin—|

```

For information about these options, see “jpeg2afp command: transforms JPEG data to AFP” on page 305.

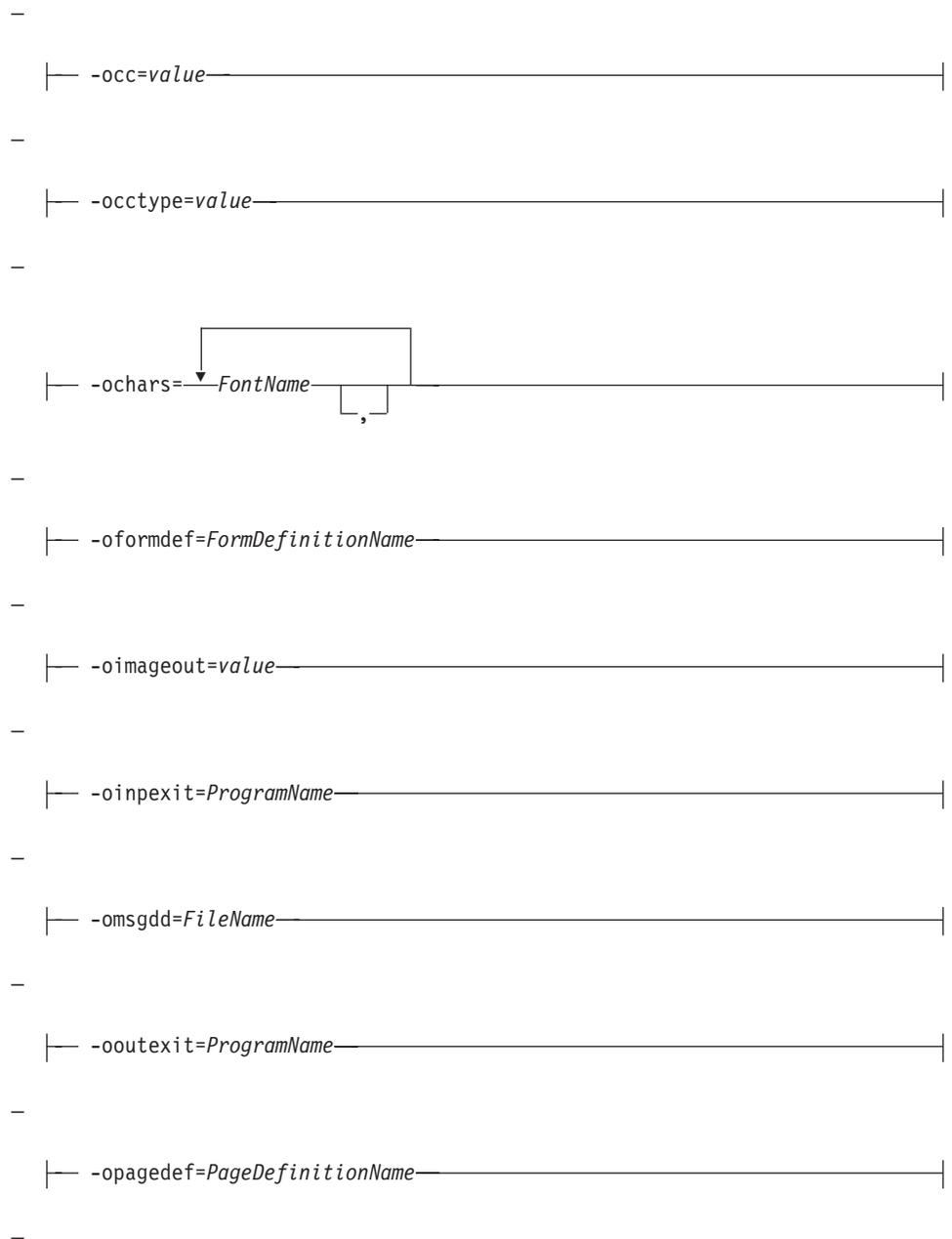
You cannot use the print command **-o** flag to pass the **jpeg2afp -o** option to specify an output file, or the **@**, **-f**, and **-z** options to specify input files.

Note: The **jpeg2afp** transform must be installed on the workstation where InfoPrint is installed.

Line data:

If you are printing S/370 line data, or you are printing ASCII data that you want to format with a page definition:

- Specify **-odatatype=line** with the **enq**, **lp**, **qprt**, or **lprafp** command; or allow InfoPrint to identify the data type.
- InfoPrint automatically runs the **line2afp** transform command.
- You can use these **line2afp** flags on the command line with **enq**, **lp**, **qprt**, or **lprafp**:



```

|— -oparmdd=FileName—————|
-
|— -opdeflib=PathList—————|
-
|— -oprmode=value—————|
-
|— -oresexit=ProgramName—————|
-
|— -otrc=value—————|
-
|— -ouserlib=PathList—————|

```

For information about these flags, see “line2afp command: transforms traditional line data and ASCII data to AFP” on page 330.

You cannot use **line2afp** flags for the input file (**inputdd**) or the output file (**outputdd**).

When you are using **line2afp** flags with an AIX print command, you should not use **line2afp** flags that do the same thing as InfoPrint-specific **-o** flags. Use the InfoPrint-specific **-o** flags instead:

- Use **enq -odatatype=line -orespath=** instead of **enq -odatatype=line -ofdeflib=**
- Use **enq -odatatype=line -osrchfontlib=** instead of **enq -odatatype=line -ofontlib=**
- Use **enq -odatatype=line -orespath=** instead of **enq -odatatype=line -oovlylib=**
- Use **enq -odatatype=line -orespath=** instead of **enq -odatatype=line -opseglib=**
- Use **enq -odatatype=line -orespath=** instead of **enq -odatatype=line -oreslib=**

Note: The **line2afp** transform and **acif** command must be installed on the workstation where InfoPrint is installed.

PCL data:

If you are printing PCL data:

- Specify **-odatatype=pcl** with the **enq**, **lp**, **qprt**, or **lprafp** command; or allow InfoPrint to identify the data type.
- InfoPrint automatically runs the **pcl2afp** transform command.
- You can use these **pcl2afp** flags on the command line with **enq**, **lp**, **qprt**, or **lprafp**. For those flags that accept a value, do not put a blank between the flag and the value.

–

|— -o-a*OutputType*—|
-
|— -o-c—|
-
|— -o-C*ConfigurationFile*—|
(the configuration file must be specified as a full path name)
-
|— -o-j*nnnn*—|
-
|— -o-l*nnnn.nnnu*—|
-
|— -o-M*nnnnn*—|
-
|— -o-p*PageRange*—|
-
|— -o-P*nnnnn*—|
-
|— -o-q—|
-
|— -o-r*nnn*—|
-
|— -o-S*ServerName*—|
-
|— -o-s*nnnn*—|
-
|— -o-w*nnnn.nnnu*—|
-
|— -o-x*nnnn.nnnu*—|

—
|— -o-yⁿⁿⁿⁿ.^{nnnu}—|

For information about these flags, see “pcl2afp command: transforms PCL data to AFP” on page 361.

You cannot use the **pcl2afp -o** flag to specify an output file.

Note: The **pcl2afp** transform must be installed on the workstation where InfoPrint is installed.

PostScript and PDF data:

If you are printing PostScript or PDF data:

- Specify **-odatatype=ps** or **-odatatype=pdf** with the **enq**, **lp**, **qpri**, or **lprafp** command; or allow InfoPrint to identify the data type.
- InfoPrint automatically runs the **ps2afp** transform command. (The **pdf2afp** command is another name for **ps2afp**.)
- You can use these **ps2afp** flags on the command line with **enq**, **lp**, **qpri**, or **lprafp**. For those flags that accept a value, do not put a blank between the flag and the value.

—
|— -o-a^{OutputType}—|

—
|— -o-c—|

—
|— -o-cm^{colorResourceName}—|

—
|— -o-C^{ConfigurationFile}—|

(the configuration file must be specified as a full path name)

—
|— -o-F^{FontMapFile}—|

(the font map files must be specified as full path names)

—
|— -o-g^{PageRange}—|

—
|— -o-jⁿⁿⁿⁿ—|

```

| -o-lnnnn.nnu |
-
| -o-Mnnnn |
-
| -o-pPageRange |
-
| -o-Pnnnn |
-
| -o-q |
-
| -o-rnnn |
-
| -o-SServerName |
-
| -o-snnnn |
-
| -o-tag 

|                 |
|-----------------|
| <i>none</i>     |
| <i>normal</i>   |
| <i>passthru</i> |

 |
-
| -o-wnnnn.nnu |
-
| -o-xnnnn.nnu |
-
| -o-ynnnn.nnu |

```

For information about these flags, see “pdf2afp and ps2afp commands: transform PDF or PostScript data to AFP” on page 387.

You cannot use the **ps2afp -o** flag to specify an output file.

Note: The **ps2afp** transform must be installed on the workstation where InfoPrint is installed.

TIFF data:

If you are printing TIFF data:

- Specify **-odatatype=tiff** with the **enq**, **lp**, **qprt**, or **lprafp** command; or allow InfoPrint to identify the data type.
- InfoPrint automatically runs the **tiff2afp** transform command.
- You can use these **tiff2afp** options on the command line with **enq**, **lp**, **qprt**, or **lprafp**. For those options that accept a value, do not put a blank between the option and the value.

```
-  
  |— -o-aImageType—————|  
-  
  |— -o-algProcessingAlgorithms—————|  
-  
  |— -o-calibcalibration—————|  
-  
  |— -o-choiceImageChoice—————|  
-  
  |— -o-CConfigurationFile—————|  
-  
  |— -o-cleancleanup—————|  
-  
  |— -o-cmpcompression—————|  
-  
  |— -o-cmrcolorResourceName—————|  
-  
  |— -o-cropCropFactors—————|  
-  
  |— -o-fit 

|       |
|-------|
| trim  |
| scale |

—————|  
-  
-
```

|— -o-force—|

—

|— -o-gcorrGrayscaleMappingTable—|

—

|— -o-inkcolor—|

—

|— -o-inv—|

—

|— -o-jScanOffsetFileName—|

—

|— -o-lImageLength—|

—

|— -o-MMemoryBound—|

—

|— -o-mp—|

—

|— -o-msspace—|

—

|— -o-msfSpaceFraction—|

—

|— -o-nomp—|

—

|— -o-nosniff—|

—

|— -o-noterm—|

—

|— -o-nov—|

—

```

|— -o-outbitsNumberOfOutputBits—|
-
|— -o-outcolorOutputColorModel—|
-
|— -o-pPageRange—|
-
|— -o-pagetypePageType—|
-
|— -o-paperPaperSize—|
-
|— -o-rresolution—|
-
|— -o-respathResourceSearchPath—|
-
|— -o-rotrotation—|
-
|— -o-scaleImageSize—|
-
|— -o-sgcorrScannerCorrection—|
-
|— -o-sniff—|
-
|— -o-tag none—|
|   normal—|
|   passthru—|
-
|— -o-term—|
-

```

```

|— -o-threshHalftoneFile—|
-
|— -o-v—|
-
|— -o-wImageWidth—|
-
|— -o-wrkdirWorkDirectory—|
-
|— -o-xLeftMargin—|
-
|— -o-yTopMargin—|

```

For information about these options, see “tiff2afp command: transforms TIFF data to AFP” on page 433.

You cannot use the print command **-o** flag to pass the **tiff2afp -o** option to specify an output file, or the **@**, **-f**, and **-z** options to specify input files.

Note: The **tiff2afp** transform must be installed on the workstation where InfoPrint is installed.

Examples for the **-o** flag

- To submit the ASCII file `myfile` to the InfoPrint logical destination called `Xserv-lp` with four copies printed on one side of hole-punched paper, which is stored in the secondary bin of the printer device, enter:

```
enq -P Xserv-lp -obin=2 -ocopies=4 -oduplex=n myfile
```

 InfoPrint includes a form definition that specifies single-sided printouts of hole-punched paper from bin 2. If this form definition (**F1H10120**) is installed in the default directory, you could alternatively type:

```
enq -P Xserv-lp -ocopies=4 -oforndef=F1H10120 myfile
```
- To submit AFP data stream files `file1` and `file2` to the InfoPrint logical destination called `dtsrv-lp`, with a search path for fonts of `/home/afpfonts`, enter:

```
lp -d dtsrv-lp -osrchfontlib=/home/afpfonts file1 file2
```
- To submit the PostScript file `myfile` to the InfoPrint logical destination called `servB-lp` (which has a resolution of 300 pels), with a form definition of `F1PP0120`, with no reported block-positioning errors for the resulting image, and with a maximum of 100 printed messages, enter:

```
qpri -P servB-lp -o-r300 -odatac=blkpos -odatat=ps -of=F1PP0120  
-omsgc=100 myfile
```

InfoPrint administrative utilities

This section describes these InfoPrint administrative utilities:

Utility Name	AIX	Windows
“afpsplit utility: extracts pages from a MO:DCA-P file” on page 177	AIX	Windows
“ainupod1 utility: generates accounting information by user” on page 179	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainupod2 utility: generates accounting information by job” on page 180	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainupod3 utility: generates accounting information for a user” on page 181	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt1 utility: generates accounting information by actual destination” on page 182	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt2 utility: generates accounting information by user” on page 183	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt3 utility: generates accounting information for a user” on page 184	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt4 utility: generates audit information by destination” on page 185	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt5 utility: generates audit information by user” on page 186	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt6 utility: generates audit information for a user” on page 187	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt7 utility: generates job-completion information for a destination” on page 188	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt8 utility: generates post-print accounting data by job submitter” on page 189	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“ainurpt9 utility: generates detailed entries of times and pages printed” on page 190	AIX	Windows: must be issued from the <i>install_path\bin</i> directory
“allocatefs utility: allocates drives for InfoPrint Manager for AIX file systems” on page 191	AIX	N/A

“cfu utility: displays and builds coded fonts in InfoPrint Manager for AIX” on page 193	AIX	N/A
“cmt utility: builds color mapping table source and object files” on page 195	AIX	Windows
“ipguiadv and ipguibasic utilities: start the InfoPrint Manager Operations GUI with InfoPrint Manager for AIX” on page 197	AIX	Windows: use icou only
“ipguiadvadm and ipguibasicadm utilities: start the InfoPrint Manager Administration GUI for InfoPrint Manager for AIX” on page 198	AIX	Windows: use icou only
“ismu utility: backs up and restores InfoPrint objects” on page 198	AIX	Windows
“jsmigr utility: migrates PSF for AIX job scripts in InfoPrint Manager for AIX” on page 200	AIX	N/A
“notificationClient” on page 202	AIX	Windows
“pdcrdflt utility: creates default auxiliary sheets, media, and queue in InfoPrint Manager for AIX” on page 202	AIX	N/A
“pdcrmed utility: creates commonly used media” on page 204	AIX	Windows
“pdnitports utility: initializes ports in InfoPrint Manager for AIX” on page 206	AIX	N/A
“pdmigpp utility: migrates existing AIX printers to InfoPrint Manager for AIX” on page 207	AIX	N/A
“pdmincfg utility: sets up a minimum InfoPrint configuration in InfoPrint Manager for AIX” on page 208	AIX	N/A
“pdmsg utility: displays information about a message in InfoPrint Manager for AIX” on page 210	AIX	N/A

“pdwsinitports utility: initialize or change the ports used by the InfoPrint Manager Web Server” on page 212	AIX	Windows
“rc.iprsap utility: start SAP daemons on InfoPrint Manager for AIX” on page 213	AIX	N/A
“rc.pd utility: restarts servers in InfoPrint Manager for AIX” on page 214	AIX	N/A
“setup utility: starts the InfoPrint installer in InfoPrint Manager for AIX” on page 215	AIX	N/A
“startppo utility: starts the InfoPrint SMIT Operator’s Interface in InfoPrint Manager for AIX” on page 218	AIX	N/A
“start_server utility: starts a server for a Basic InfoPrint Installation in InfoPrint Manager for AIX” on page 219	AIX	N/A
“startsrv utility: starts a server in InfoPrint Manager for AIX” on page 221	AIX	N/A
“stop_server utility: shuts down a server in InfoPrint Manager for AIX” on page 223		

afpsplit utility: extracts pages from a MO:DCA-P file

Syntax

afpsplit utility

```

>> afpsplit [-f page] [-p page] [-o OutputFile] InputFile

```

Description

Enter the **afpsplit** command to extract a page or a range of pages from an AFP MO:DCA-P document and create MO:DCA-P output.

You might use the **afpsplit** command to create a separate file starting at the 25th page and ending at the 50th page of a 200-page document. After you use the **afpsplit** command to create a file, you can view, store, print, or send that file.

Notes:

1. **afpsplit** removes structured index fields from MO:DCA-P files. This does not affect the appearance of printed files, but index entries are no longer available for viewing.
2. **afpsplit** writes error messages to STDERR.

Flags

`-f—page`

- Specifies the forward space function, where *page* indicates the number of pages (0-999999999) that you can forward space from the beginning of the input file to start extracting the page or range of pages. To start extracting on page *n*, forward space *n-1* pages.
If you do not specify the **-f** flag, the extraction starts at the beginning of the file. If you specify more than one **-f** flag, the last one you specify is used.

`-p—page`

- Specifies the page end function, where *page* indicates the number of pages (0-999999999) to be extracted.
If you do not specify the **-p** flag, all pages from the forward space point to the end of the input file are included in the output file. If you specify more than one **-p** flag, the last one you specify is used.

`-o—OutputFile`

- Specifies the name of the file for the page or range of pages produced by **afpsplit**.
If you do not specify this flag, **afpsplit** uses standard output (STDOUT).

Arguments

The valid argument value for the **afpsplit** utility is:

`InputFile`

- Specifies the input file.
If you do not specify an input file, **afpsplit** uses standard input (STDIN).

Example

To extract pages 21-30 from a MO:DCA-P input file called `input.afp` and use the **pdpr** command to print those 10 pages on printer `serv1-lp`, enter:

```
afpsplit -f 20 -p 10 input.afp | pdpr -p serv1-lp
```

ainupod1 utility: generates accounting information by user

Syntax

ainupod1 utility

▶▶—ainupod1—◀◀

Description

For InfoPrint Manager for AIX, use the **ainupod1** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF, fax, or email actual destinations, sorted by user ID. This information is derived from the **/var/psf/podaccount.log** file. By default, basic InfoPrint installations set the value of the **accounting-exit** actual destination attribute to **job-ticket**, which invokes a user exit program that writes accounting information to this file.

For InfoPrint Manager for Windows, use the **ainupod1** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF actual destinations, sorted by user ID. This information is derived from the **install_path\var\psf\podaccount.log** file. By default, basic InfoPrint installations set the value of the **accounting-exit** actual destination attribute to **job-ticket**, which invokes a user exit program that writes accounting information to this file.

Note: On Windows, this command must be run from the **install_path\bin** directory.

Example

To generate accounting information for all users, enter:

```
ainupod1
```

ainupod1 returns information similar to:

Accounting Report by Customer ID

Customer	Jobs	Pages	Bin1	Bin2
-----	----	-----	-----	----
apple	6	8	8	0
donald	18	2297	1511	0

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate accounting reports from the **podaccount.log** file, see “ainupod2 utility: generates accounting information by job” on page 180 and “ainupod3 utility: generates accounting information for a user” on page 181.
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.

- Utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination” on page 185, “ainurpt5 utility: generates audit information by user” on page 186, and “ainurpt6 utility: generates audit information for a user” on page 187.

ainupod2 utility: generates accounting information by job

Syntax

ainupod2 utility

▶▶—ainupod2—▶▶

Description

For InfoPrint Manager for AIX, use the **ainupod2** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF, fax, and email actual destinations, sorted by job ID. This information is derived from the `/var/psf/podaccount.log` file. By default, basic InfoPrint installations set the value of the `accounting-exit` actual destination attribute to **job-ticket**, which invokes a user exit program that writes accounting information to this file.

For InfoPrint Manager for Windows, use the **ainupod2** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF actual destinations, sorted by job ID. This information is derived from the `install_path\var\psf\podaccount.log` file. By default, basic InfoPrint installations set the value of the `accounting-exit` actual destination attribute to **job-ticket**, which invokes a user exit program that writes accounting information to this file.

Note: On Windows, this command must be run from the `install_path\bin` directory.

Example

To generate accounting information for all jobs, enter:

```
ainupod2
```

ainupod2 returns information similar to:

Accounting Report by Job ID

Job ID	Jobs	Pages	Bin1	Bin2
E1A0540F.3F8	7	48	48	0
E1B0440B.B0B	10	196	175	0
NONE	53	94	94	0

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate accounting reports from the `podaccount.log` file, see “ainupod1 utility: generates accounting information by user” on page 179 and “ainupod3 utility: generates accounting information for a user” on page 181.
- Utilities that generate accounting reports from the `accounting.log` file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182

page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.

- Utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination” on page 185, “ainurpt5 utility: generates audit information by user” on page 186, and “ainurpt6 utility: generates audit information for a user” on page 187.

ainupod3 utility: generates accounting information for a user

Syntax

ainupod3 utility

►—ainupod3—◄

Description

For InfoPrint Manager for AIX, use the **ainupod3** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF, fax, and email actual destinations by a given user. This information is derived from the */var/psf/podaccount.log* file. By default, basic InfoPrint installations set the value of the **accounting-exit** actual destination attribute to **job-ticket**, which invokes a user exit program that writes accounting information to this file.

For InfoPrint Manager for Windows, use the **ainupod3** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF actual destinations by a given user. This information is derived from the *install_path\var\psf\podaccount.log* file. By default, basic InfoPrint installations set the value of the **accounting-exit** actual destination attribute to **job-ticket**, which invokes a user exit program that writes accounting information to this file.

Note: On Windows, this command must be run from the *install_path\bin* directory.

Example

To generate accounting information for user donald, enter:

```
ainupod3
```

When **ainupod3** prompts you for a user ID, enter:

```
donald
```

ainupod3 returns information similar to:

```
Print Activity Report for donald
```

Start Date	Start Time	Destination ID	Pages Printed	Copies Requested	Job Identification
07/26/1997	15:36:32	e1	45	1	E1B0440B.B0B
07/31/1997	08:24:24	3900-p4	15	1	ila11908.54d
08/01/1997	08:28:48	e1	131	1	e1a1050c.431

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179 and “ainupod2 utility: generates accounting information by job” on page 180.
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination,” “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination” on page 185, “ainurpt5 utility: generates audit information by user” on page 186, and “ainurpt6 utility: generates audit information for a user” on page 187.

ainurpt1 utility: generates accounting information by actual destination

Syntax

ainurpt1 utility

►►—ainurpt1—◄◄

Description

For InfoPrint Manager for AIX, use the **ainurpt1** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF, fax, and email actual destinations, sorted by actual destination. This information is derived from the **/var/psf/accounting.log** file. By default, InfoPrint installations set the value of the the **accounting-exit** actual destination attribute to **accounting-log**, which invokes a user exit program that writes accounting information to this file.

For InfoPrint Manager for Windows, use the **ainurpt1** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF actual destinations, sorted by actual destination. This information is derived from the **install_path\var\psf\accounting.log** file. By default, InfoPrint installations set the value of the the **accounting-exit** actual destination attribute to **accounting-log**, which invokes a user exit program that writes accounting information to this file.

Note: On Windows, this command must be run from the **install_path\bin** directory.

Example

To generate accounting information for all PSF, fax, and email actual destinations, enter:

```
ainurpt1
```

ainurpt1 returns information similar to:

Destination	Jobs	Pages	Bin1	Bin2	Fonts	Resident	Overlays	Hard	Soft	DORs
ksrv-p1	120	1200	88	32	10	0	0	0	0	15
ksrv-p2	72	981	72	0	4	0	0	0	0	0

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate accounting reports from the **accounting.log** file, see “ainurpt2 utility: generates accounting information by user” and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.
- Utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination” on page 185, “ainurpt5 utility: generates audit information by user” on page 186, and “ainurpt6 utility: generates audit information for a user” on page 187.

ainurpt2 utility: generates accounting information by user

Syntax

ainurpt2 utility

►►—ainurpt2—◄◄

Description

For InfoPrint Manager for AIX, use the **ainurpt2** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF, fax, and email actual destinations, sorted by user. This information is derived from the **/var/psf/accounting.log** file. By default, InfoPrint installations set the value of the the **accounting-exit** actual destination attribute to **accounting-log**, which invokes a user exit program that writes accounting information to this file.

For InfoPrint Manager for Windows, use the **ainurpt2** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF actual destinations, sorted by user. This information is derived from the **install_path\var\psf\accounting.log** file. By default, InfoPrint installations set the value of the the **accounting-exit** actual destination attribute to **accounting-log**, which invokes a user exit program that writes accounting information to this file.

Note: On Windows, this command must be run from the **install_path\bin** directory.

Example

To generate accounting information for all users, enter:

```
ainurpt2
```

ainurpt2 returns information similar to:

Userids	Jobs	Pages	Bin1	Bin2	Fonts	Resident	Overlays	Hard	Soft	DORs
billing	120	1200	88	32	10	0	0	0	0	11
reppen	72	981	72	0	4	0	0	0	0	4

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182 and “ainurpt3 utility: generates accounting information for a user.”
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.
- Utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination” on page 185, “ainurpt5 utility: generates audit information by user” on page 186, and “ainurpt6 utility: generates audit information for a user” on page 187.

ainurpt3 utility: generates accounting information for a user

Syntax

ainurpt3 utility

►►—ainurpt3—◄◄

Description

For InfoPrint Manager for AIX, use the **ainurpt3** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF, fax, and email actual destinations by a given user. This information is derived from the **/var/psf/accounting.log** file. By default, advanced InfoPrint installations set the value of the the **accounting-exit** actual destination attribute to **accounting-log**, which invokes a user exit program that writes accounting information to this file.

For InfoPrint Manager for Windows, use the **ainurpt3** utility to generate a report of accounting information for all jobs printed or sent on all defined PSF actual destinations by a given user. This information is derived from the **install_path\var\psf\accounting.log** file. By default, advanced InfoPrint installations set the value of the the **accounting-exit** actual destination attribute to **accounting-log**, which invokes a user exit program that writes accounting information to this file.

Note: On Windows, this command must be run from the **install_path\bin** directory.

Example

To generate accounting information for user kathy, enter:

```
ainurpt3
```

When **ainurpt3** prompts you for a user ID, enter:

kathy

ainurpt3 returns information similar to:

Report for kathy

Start Date	Start Time	Destination ID	Pages Printed	Job Name
06/02/1997	12:53:47	ksrv-p1	1190	/net/home/kathy/May.billing
06/03/1997	15:42:31	hsrv-p1	944	/net/home/kathy/May.reports

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182 and “ainurpt2 utility: generates accounting information by user” on page 183.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.
- Utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination,” “ainurpt5 utility: generates audit information by user” on page 186, and “ainurpt6 utility: generates audit information for a user” on page 187.

ainurpt4 utility: generates audit information by destination

Syntax

ainurpt4 utility

►►—ainurpt4—◄◄

Syntax

ainurpt4

Description

For InfoPrint Manager for AIX, use the **ainurpt4** utility to generate a report of audit information for all jobs printed or sent on all defined PSF, fax, and email actual destinations, sorted by actual destination. This information is derived from the **/var/psf/audit.log** file. To write information to this file, specify **accounting-log** as the value of the **audit-exit** actual destination attribute.

For InfoPrint Manager for Windows, use the **ainurpt4** utility to generate a report of audit information for all jobs printed or sent on all defined PSF actual destinations, sorted by actual destination. This information is derived from the **install_path\var\psf\audit.log** file. To write information to this file, specify **accounting-log** as the value of the **audit-exit** actual destination attribute

Note: On Windows, this command must be run from the *install_path\bin* directory.

Example

To generate audit information for all PSF, fax, and email actual destinations, enter:

```
ainurpt4
```

ainurpt4 returns information similar to:

Destination	Jobs	Pages	Bin1	Bin2	Fonts	Resident	Overlays	Hard	Soft	DORs
ksrv-p1	120	1200	88	32	10	0	0	0	0	15
ksrv-p2	72	981	72	0	4	0	0	0	0	0

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate audit reports, see “ainurpt5 utility: generates audit information by user” and “ainurpt6 utility: generates audit information for a user” on page 187.
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.

ainurpt5 utility: generates audit information by user

Syntax

ainurpt5 utility

```
▶▶—ainurpt5—▶▶
```

Description

For InfoPrint Manager for AIX, use the **ainurpt5** utility to generate a report of audit information for all jobs printed or sent on all defined PSF, fax, and email actual destinations, sorted by user. This information is derived from the */var/psf/audit.log* file. To write information to this file, specify **accounting-log** as the value of the **audit-exit** actual destination attribute.

For InfoPrint Manager for Windows, use the **ainurpt5** utility to generate a report of audit information for all jobs printed or sent on all defined PSF actual destinations, sorted by user. This information is derived from the *install_path\var\psf\audit.log* file. To write information to this file, specify **accounting-log** as the value of the **audit-exit** actual destination attribute.

Note: On Windows, this command must be run from the *install_path\bin* directory.

Example

To generate audit information for all users, enter:

```
ainurpt5
```

ainurpt5 returns information similar to:

Userids	Jobs	Pages	Bin1	Bin2	Fonts	Resident	Overlays	Hard	Soft	DORs
billing	120	1200	88	32	10	0	0	0	0	11
reppen	72	981	72	0	4	0	0	0	0	4

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination” on page 185 and “ainurpt6 utility: generates audit information for a user.”
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.

ainurpt6 utility: generates audit information for a user

Syntax

ainurpt6 utility

```
▶▶—ainurpt6—▶▶
```

Description

For InfoPrint Manager for AIX, use the **ainurpt6** utility to generate a report of audit information for all jobs printed or sent on all defined PSF, fax, and email actual destinations by a given user. This information is derived from the **/var/psf/audit.log** file. To write information to this file, specify **accounting-log** as the value of the **audit-exit** actual destination attribute.

For InfoPrint Manager for Windows, use the **ainurpt6** utility to generate a report of audit information for all jobs printed or sent on all defined PSF actual destinations by a given user. This information is derived from the **install_path\var\psf\audit.log** file. To write information to this file, specify **accounting-log** as the value of the **audit-exit** actual destination attribute.

Note: For Windows, this command must be run from the **install_path\bin** directory.

Example

To generate audit information for user kathy, enter:

```
ainurpt6
```

When **ainurpt6** prompts you for a user ID, enter:

```
kathy
```

ainurpt6 returns information similar to:

Report for kathy

Start Date	Start Time	Destination ID	Pages Printed	Job Name
06/02/1997	12:53:47	ksrv-p1	1190	/net/home/kathy/May.billing
06/03/1997	15:42:31	hsrv-p1	944	/net/home/kathy/May.reports

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate audit reports, see “ainurpt4 utility: generates audit information by destination” on page 185 and “ainurpt5 utility: generates audit information by user” on page 186.
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.

ainurpt7 utility: generates job-completion information for a destination

Syntax

ainurpt7 utility

```
▶▶—ainurpt7—▶▶
```

Description

For InfoPrint Manager for AIX, use the **ainurpt7** utility to generate a report of job-completion information sorted by actual destination. This information is derived from the **/var/psf/jobcompletion.log** file. To write information to this file:

1. Decide which actual destination you want to include information for.
2. For each actual destination, set the **accounting-exit=accounting-log** or specify the name of your own **accounting-log auxiliary sheet object**.
3. In the **accounting-log auxiliary sheet object** or specify the name of your own **accounting-log auxiliary sheet object**, set **psf-post-print-accounting-name=ainuxjobcompletion**.

For InfoPrint Manager for Windows, use the **ainurpt7** utility to generate a report of job-completion information sorted by actual destination. This information is derived from the *install_path\var\psf\jobcompletion.log* file. To write information to this file:

1. Decide which actual destination you want to include information for.
2. For each actual destination, set the **accounting-exit=accounting-log** or specify the name of your own **accounting-log auxiliary sheet object**.
3. In the **accounting-log auxiliary sheet object** or specify the name of your own **accounting-log auxiliary sheet object**, set **psf-post-print-accounting-name=ainuxjobcompletion**.

Note: For Windows, this command must be run from the *install_path\bin* directory.

Example

To generate job-completion information for all destinations, enter:

```
ainurpt7
```

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate job-completion information reports, see “ainurpt8 utility: generates post-print accounting data by job submittor” and “ainurpt9 utility: generates detailed entries of times and pages printed” on page 190.
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.

ainurpt8 utility: generates post-print accounting data by job submittor

Syntax

ainurpt8 utility

```
▶▶—ainurpt8—▶▶
```

Description

For InfoPrint Manager for AIX, use the **ainurpt8** utility to generate a report of post-print accounting data sorted by job submittor. This information is derived from the */var/psf/jobcompletion.log* file.

For InfoPrint Manager for Windows, use the **ainurpt8** utility to generate a report of post-print accounting data sorted by job submittor. This information is derived from the *install_path\var\psf\jobcompletion.log* file.

Note: For Windows, this command must be run from the *install_path\bin* directory.

Example

To generate post-print accounting report for all job submitters, enter:

```
ainurpt8
```

Suggested reading

For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate job-completion information reports, see “ainurpt7 utility: generates job-completion information for a destination” on page 188 and “ainurpt9 utility: generates detailed entries of times and pages printed.”
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.

ainurpt9 utility: generates detailed entries of times and pages printed

Syntax

ainurpt9 utility

```
▶▶—ainurpt9—————▶▶
```

Description

For InfoPrint Manager for AIX, use the **ainurpt9** utility to generate a report of job-completion information sorted by jobs. This information is derived from the */var/psf/jobcompletion.log* file.

For InfoPrint Manager for Windows, use the **ainurpt9** utility to generate a report of detailed entries of times and pages printed for sorted by job submitter. This information is derived from the *install_path\var\psf\jobcompletion.log* file.

Note: For Windows, this command must be run from the *install_path\bin* directory.

Example

To generate detailed entries of times and pages printed for all job submitters, enter:

```
ainurpt9
```

Suggested reading

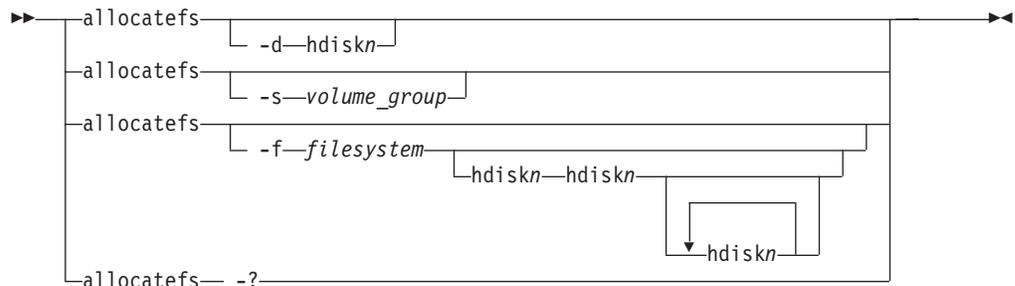
For information about:

- Auxiliary sheets, see “Attributes for auxiliary-sheet objects” on page 678.
- Other utilities that generate job-completion information reports, see “ainurpt7 utility: generates job-completion information for a destination” on page 188 and “ainurpt8 utility: generates post-print accounting data by job submittor” on page 189.
- Utilities that generate accounting reports from the **accounting.log** file, see “ainurpt1 utility: generates accounting information by actual destination” on page 182, “ainurpt2 utility: generates accounting information by user” on page 183, and “ainurpt3 utility: generates accounting information for a user” on page 184.
- Utilities that generate accounting reports from the **podaccount.log** file, see “ainupod1 utility: generates accounting information by user” on page 179, “ainupod2 utility: generates accounting information by job” on page 180, and “ainupod3 utility: generates accounting information for a user” on page 181.

allocatefs utility: allocates drives for InfoPrint Manager for AIX file systems

Syntax

allocatefs utility

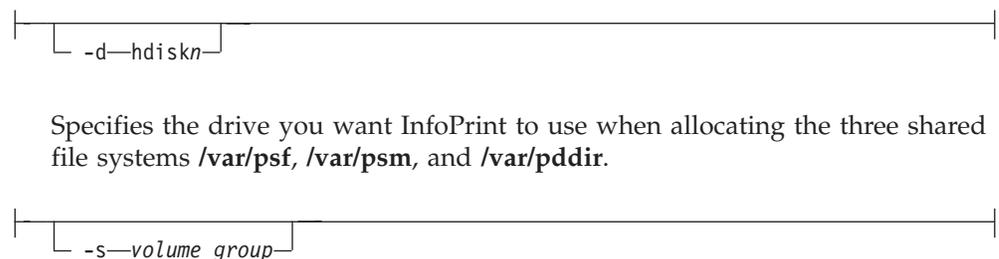


Description

Use the **allocatefs** utility to allocate drives and specify a volume group for the InfoPrint Manager for AIX file systems.

Flags

The **allocatefs** utility uses these flags:



Build file format

Each non-commented line in the build file defines one repeating group in the Coded Font Index structured field. Repeating group definitions can not span more than one line and fields in each line must be delimited with blanks. A pound sign (#) at the beginning of a line indicates a comment.

A repeating group definition has these format:

- Field 1 is the section identifier of the repeating group. The format is *X'hh'*, where *hh* is the hexadecimal section identifier. Both the *X* character and the single quotation marks are required.
- Field 2 is the character set name. Only the first 8 characters are used.
- Field 3 is the code page name. Only the first 8 characters are used.
- Field 4 is the section resident indicator:
 - 1 Use the printer-resident section if possible.
 - 0 Download the section.

Note: This field is only meaningful for double-byte raster fonts.

This is an example of a repeating group:

```
# SectId CharSet CodePage Resident
# -----
X'41' C0Z24F41 T1Z24F41 0
```

Arguments

The valid argument values for the **cfu** utility are:

|—*CodedFontName*—|

- The name of the coded font for display mode or the new coded font name in build mode. **cfu** will not overwrite existing coded fonts in build mode.

Note: In build mode, the *coded font name* is also the internal coded font name in the Begin Coded Font structured field.

|—*BuildFileName*—|

The input file used to build a new coded font. If *build file name* is omitted, **cfu** reads from standard input.

Examples

- To display the contents of the coded font X0Z24F, enter either of these commands:

```
cfu X0Z24F
cfu -d X0Z24F
```

- To build a new coded font with the name X0Z24F using build file X0Z24F.bld, enter:

```
cfu -b X0Z24F X0Z24F.bld
```

Suggested reading

See *Data Stream and Object Architectures: Font Object Content Architecture Reference* for more information about coded font structured fields.

cmt utility: builds color mapping table source and object files

Syntax

cmt utility

```
▶▶ cmt -i input file [-o output file] [-n internal CMT name]
[-t]
```

Description

cmt, the Color Mapping Table Utility, generates color mapping table source and object files. If the input file is an object color mapping table, **cmt** generates a source output file; and if the input file is a source file, **cmt** generates an object file. Object color mapping tables are used to map OCA (Object Content Architecture) colors and fills to printer specific colors.

Flags

The **cmt** utility uses the these flags:

```
| -i input file |
```

The file name of the input file. The input file can be a source or object file. When you use the **cmt** utility, you must specify this flag.

```
| [-o output file] |
```

The file name of the output file. If this flag is not specified, **stdout** is used. This is a optional flag.

```
| [-n internal CMT name] |
```

The name that appears on the MO:DCA™ Begin Object Container (BOC) structured field. This is a optional flag.

```
| [-t] |
```

Use this flag to turn on trace. This is a optional flag.

Color mapping table source file

The source file describes the contents of the color mapping table object file.

Each mapping definition of one source color or fill to a target color is bracketed by the keywords **BeginMappingDef:** and **EndMappingDef:**. The **cmt** utility requires one mapping definition for each source target mapping.

Each source definition in a mapping definition is bracketed by the keywords **BeginSourceDef:** and **EndSourceDef:**. The **cmt** utility requires one source definition for each mapping definition.

Valid keywords and values for a source definition follow:

ColorSpace

You must specify **OCA**, **Highlight**, or **GOCA**.

ColorValue

You must specify a value that depends upon the value specified for **ColorSpace:**

- When **ColorSpace=OCA**, **ColorValue** is a one string component of these values:

- Default**
- Blue**
- Red**
- Pink**
- Green**
- Cyan**
- Yellow**
- Black**
- Brown**
- Medium**
- White**
- Dark Blue**
- Orange**
- Purple**
- Dark Green**
- Turquoise**
- Dark Turquoise**
- Mustard**
- Gray**
- Pink**
- Magenta**

Notes:

1. The binary representation for all **OCA** colors are supported by the **cmt** utility.
 2. When you specify the colors that are two words, specify an underscore between the two words. For example, when you want to use **Dark Blue**, specify **Dark_Blue**.
- When **ColorSpace=Highlight**, the **ColorValue** has one component, integer 0 through 3, for example:
ColorValue: 2
 - When **ColorSpace=GOCA**, the **ColorValue** has one component, integer 0 through 16 or 64, for example:
ColorValue: 13

Each target definition in a mapping definition is bracketed by the keywords **BeginTargetDef** and **EndTargetDef**. The **cmt** utility requires one target definition in each mapping definition. Valid keywords and values for a target definition follow:

Note: The **ismu** utility must not be used to perform crossover migrations, such as migrating the AIX environment to the Windows environment and backwards. Use this utility to backup and restore only similar OS environments.

Flags

You can use this flag with the **ismu** utility:

```
|-----|  
|  -h  |
```

- Use this flag to display the help information

Arguments

Use the argument values to specify object names, paths or backup and restore options.

You can use these arguments with the **ismu** utility:

```
|-----|  
|  pdname  |  
|  |  all  |  
|  |  server_name  |
```

- The value represents the InfoPrint Manager server name. If the directory does not exist, it is automatically created.

all Archives or restores all **pdserver**s that are found on the AIX and Windows machine the tool is running on.

server_name Use this attribute to identify a specific server.

```
|-----|  
|  pdtemp  folder_name  |
```

- The value represents the System Migration Utility working directory. The default paths are: /tmp for AIX and C:\Temp for Windows.

folder_name Use this attribute to identify a specific folder name for the temporary folder.

```
|-----|  
|  pdarchive  |
```

- Use this argument to archive the **InfoPrint Manager** server objects.

```
|-----|  
|  pdrestore  |
```

- Use this argument to restore the InfoPrint Manager server objects that have been archived with the **pdarchive** command.

```
|-----|  
|  pdmodify_to  server_name  |
```

- Use this argument to change the name of the InfoPrint Manager server to *server_name*. Every object inside the file archive is modified to reflect the server name change.



- Use this argument to save and archive configuration files.



- Use this argument to restore the configuration files archived with the `pdsave_cfg_files` command.

Examples

Archive objects

To archive all the objects from a server and place the resulting archive in a specific directory, also saving the configuration files, enter:

```
ismu -pdname=server1 -pdarchive -temp="C:\Program Files\temp1"
-pdsave_cfg_files
```

Restore objects

To restore all the servers objects that are found in one specific archive directory, enter:

```
ismu -pdrestore -temp=\usr\temp1
```

Suggested reading

For information about:

- Attributes file, see “Attributes file” on page 18
- Headings and style, see “Command output: headings and style” on page 16
- Attributes for InfoPrint objects, see Chapter 3, “InfoPrint object attributes,” on page 471.
- For introductory information about object attributes and their use with commands, see “Introducing object attributes” on page 474, which includes information about non-settable, initially settable, and resettable attributes.

jsmigr utility: migrates PSF for AIX job scripts in InfoPrint Manager for AIX

Syntax

jsmigr utility



Description

Enter the **jsmigr** utility to migrate PSF for AIX job scripts to InfoPrint command scripts and attributes files. The **jsmigr** utility creates these files:



- InfoPrint command script containing
 - The **pdpr** command
 - One or more **-X** flags invoking attributes files
 - Other flags and arguments of the **pdpr** command, if the job script includes the corresponding keywords

This file is created in the same directory as the migrated job script and has the same file name with **.ksh** appended.



Attributes file used by *JobScript.ksh*, containing attributes migrated from the job script keywords. This file is created in the same directory as the migrated job script and has the same file name with **.X** appended.



Attributes files used by *JobScript.ksh*. These files are migrated from job scripts named as values for the **a_Parmdd**, **i_Filenames**, **p_Config**, and **e_Filemsg** keywords. Each file is created in the same directory as the original file and has the same file name with **.X** appended.

Notes:

1. This utility normally executes as part of the InfoPrint installation.
2. Appendix B, “Migrating PSF for AIX job script keywords to InfoPrint equivalents,” on page 1035 shows the attributes to which job script keywords are migrated.
3. If multiple job scripts refer to the same file, **jsmigr** migrates the file only once.
4. Job scripts named as values for the **a_Parmdd**, **p_Config**, and **e_Filemsg** keywords must be specified with absolute path names.
5. InfoPrint searches for job scripts named as values for the **i_Filenames** keyword in these directories:
 - a. Current directory
 - b. **\$HOME/js**
 - c. **/var/psf/js**
6. If a data type is specified with the **JsFileType** keyword, keywords that are not valid for that data type are commented out in the attributes file resulting from conversion. For example, if **JsFileType** has any value other than **line**, all **a_** keywords are commented out. If you edit the attributes file and change the value of the **document-format** attribute to **line-data**, you must remove the comment characters before using the attributes file to submit line-data jobs.

7. Job scripts containing both **a_** and **p_** keywords might convert to an attributes file that causes transforms to fail, especially if any of the keywords convert to the **other-transform-options** attribute. This happens because PSF for AIX ignores job script keywords that do not apply to the job, but InfoPrint processes all attributes.
8. If **jsmigr** encounters a job script keyword that it cannot map to an InfoPrint attribute, it issues an error message, erases the attributes file it is writing, ends migrating the job script, and continues with the next job script.
9. If **jsmigr** encounters a job script keyword that it can map to an InfoPrint attribute, with a value that has no InfoPrint equivalent, it converts the keyword and continues writing the attributes file. When you use the attributes file to submit a job, InfoPrint issues an error message and does not print or send the job.

Arguments

The argument value identifies the job script to be migrated.

Valid argument values for the **jsmigr** utility are:



- Specifies the job script to be migrated. The job script file must have a **.js** extension, which you do not have to specify.
You can specify multiple job script names. You can use an asterisk (*) to specify all job scripts in a directory.

Examples

- To migrate the job scripts `bigjob.js` and `smalljob.js`, enter:
`jsmigr bigjob smalljob`
- To migrate all the job scripts in the directory `/var/psf/js`, enter:
`jsmigr /var/psf/js/*`

notificationClient

Used to start a notification window to retrieve notifications delivered by *message* from the notification server.

pdcrflt utility: creates default auxiliary sheets, media, and queue in InfoPrint Manager for AIX

Syntax

pdcrflt utility



Description

Enter the **pdcrdflt** utility to do these server configuration tasks:

- Create the default queue (*serverName -q*)
- Create the default logical destination (*serverName -ld*)
- Create the default auxiliary sheets and media in a server.
- If you specify the **-c** flag, **pdcrdflt**
 - Sets the **save-rip-files** server attribute to **true**.
 - Creates the Basic default queue (*ServerName-default-queue*) and sets the **assign-to-printer** queue attribute to **true**
 - Creates logical destinations and associated initial value jobs for InfoPrint Submit.

The default auxiliary sheets that this utility creates are:

- **accounting-log**
- **blank**
- **brief**
- **full**
- **job-ticket**
- **none**
- **64xx**

The default media that this utility creates are:

- **A3**
- **A4**
- **B4**
- **B5**
- **ledger**
- **legal**
- **letter**
- **tabloid**

You only need to run the **pdcrdflt** utility if the **startsrv** utility failed to create all the default objects.

Flags

The **pdcrdflt** utility uses these flags:

-c

Configures the server for a basic installation. If you do not specify this flag, InfoPrint configures the server for a standard installation.

Arguments

The argument value identifies the server to which the utility applies.

Valid argument values for the **pdcrdflt** utility are:

<i>ServerName</i>

Specifies the name of the server to configure. You must specify the name.

ServerName

Specifies the name of the server to configure. You must specify the name.

Examples

- To create the default objects for a server with the name `srv1`, enter:
`pdcrdflt srv1`
- To configure the server `charlie` for a basic installation and create the default objects for InfoPrint Submit, enter:
`pdcrdflt -c charlie`

pdcrmed utility: creates commonly used media

Syntax

For AIX:

pdcrmed utility

▶▶—pdcrmed—*ServerName*—————▶▶

For Windows:

pdcrmed utility

▶▶—pdcrmed—————▶▶

Description

Enter the **pdcrmed** utility to create the large number of predefined medium objects. Use this utility after starting the server.

The utility creates these predefined medium objects:

A0	b	na-7x9-envelope
A1	c	na-9x11-envelope
A2	d	na-9x12-envelope
A3-colored	designated-long-envelope	na-10x13-envelope
A4-colored	e	na-10x14-envelope
A4-transparent	executive	na-10x15-envelope
A4-tab	folio	quarto
A5	invoice	RA3
A5-colored	jis-b0-white	RA4
A6	jis-b1-white	7.75 envelope
A7	jis-b2-white	8Kai
A8	jis-b3-white	8x10
A9	jis-b4-colored	8x10.5
A10	jis-b4-white	8x13
B0	jis-b5-colored	8.25x13
B1	jis-b5-white	8.25x14
B2	jis-b6-white	8.5x10
B3	jis-b7-white	8.5x12.4
B4-colored	jis-b8-white	9x11
B4-envelope	jis-b9-white	9x14
B5-colored	jis-b10-white	10x14
B5-envelope	letter-tab	11x14
B6	manual	11x15
B7	monarch-envelope	12x18
B8	na-legal-colored	14x17
B9	na-letter-colored	14x18
B10	na-letter-transparent	16Kai
C4-envelope	na-number-9-envelope	170x210
C5-envelope	na-number-10-envelope	182x210
a	na-6x9-envelope	

Arguments

The argument value identifies the server to which the utility applies.

Valid argument values for the **pdcrmed** utility are:

|—*ServerName*—|

With InfoPrint Manager for AIX, specifies the name of the server on which to create the medium objects. You must specify the name.

Example

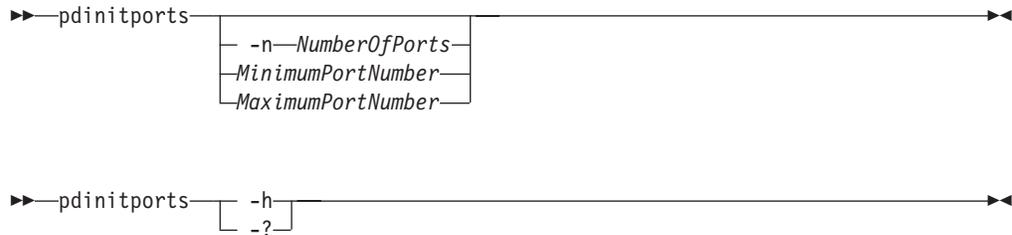
To create the commonly used medium objects on a server with the name `srv1`, enter:

```
pdcrmed srv1
```

pdinitports utility: initializes ports in InfoPrint Manager for AIX

Syntax

pdinitports utility



Description

For InfoPrint Manager for AIX, use the **pdinitports** utility to set up InfoPrint to use a specific range or number of port numbers on this system for interprocess communication. By initializing a specific range of port numbers, you can avoid using port numbers that are used by or reserved for other programs.

Notes:

1. See the **/etc/services** file for reserved port numbers. Because InfoPrint does not use the port numbers in **/etc/services**, you do not have to run this utility if all reserved port numbers are listed there.
2. Avoid conflicting with any of the port numbers that AIX clients use to send requests to the InfoPrint server; and avoid conflicting with any of the port numbers used by the InfoPrint communications daemons. For example, a port number that clients use to send requests to the InfoPrint server is 6874 by default. If you do not modify this value, when you use the **pdinitports** utility to specify a range of port numbers for interprocess communication, the range must exclude 6874.
3. Because InfoPrint automatically initializes port numbers when it is started, you should not normally have to run this utility.
4. Before using this utility, you must shut down all the servers on this system.

Flags

The **pdinitports** utility uses these flags:



Specifies that InfoPrint is to find the first available block of *num-ports* port numbers and use them. If you do not specify either this flag or a range of port numbers, **pdinitports** finds and uses the first available block of 10 port numbers.



Displays help for the **pdinitports** utility.

|— -? —|

Displays help for the **pdinitports** utility.

Arguments

Valid argument values for the **pdinitports** utility are:

|— *MinimumPortNumber* —|

The minimum port number that the InfoPrint will use on this system.

|— *MaximumPortNumber* —|

The maximum port number that the InfoPrint will use on this system.

If you do not specify either a range of port numbers or the **-n** flag, **pdinitports** finds and uses the first available block of 10 port numbers.

Examples

- To initialize InfoPrint to use the first available range of 12 ports, enter:
`pdinitports -n 12`
- To initialize InfoPrint to use ports 6001 through 6010, enter:
`pdinitports 6001 6010`

pdmigpp utility: migrates existing AIX printers to InfoPrint Manager for AIX

Syntax

pdmigpp utility

►►— **pdmigpp**—*AIXPrintQueue*—*Servername*—*DestinationName*—*QueueName*—◄◄

Description

Enter the **pdmigpp** utility to migrate an existing AIX print queue to an actual destination in InfoPrint.

You can migrate printer devices currently configured for the AIX print system, for PSF for AIX, and for AIX remote queues that send jobs to another AIX processor or to any remote host connected to the network with TCP/IP.

This utility automatically selects the appropriate DSS, which the **device-support-system** actual destination attribute reflects. If the AIX print queue is a remote queue, InfoPrint selects the BSD DSS. For PSF physical printers, the utility selects the appropriate attachment type, reflected by the **attachment-type** actual destination attribute. The corresponding InfoPrint actual destination attributes, if they exist, reflect any values for the existing printer device.

After this utility has run successfully, an InfoPrint actual destination that is equivalent to the AIX print queue exists in the specified server.

To run this utility make sure that:

- You are logged onto the AIX processor that the AIX print queue is in.
- The InfoPrint server whose name you specify is up and running.

Arguments

The argument value identifies the existing AIX virtual printer that the utility migrates to InfoPrint as an actual destination in the specified server and its associated queue.

Valid argument values for the **pdmigpp** utility are:

|—*AIXPrintQueue*—|

The name of an existing AIX print queue that the utility migrates to InfoPrint.

|—*ServerName*—|

Specifies the name of the server that will contain the actual destination the utility creates.

|—*DestinationName*—|

The name of the InfoPrint actual destination that the utility creates.

|—*QueueName*—|

The name of the InfoPrint queue that will provide jobs to the created actual destination.

Example

To migrate the PSF for AIX print queue `lpd8` to actual destination `PhyPtr3` on server `Server2` with an associated queue of `queue1`, enter:

```
pdmigpp lpd8 Server2 PhyPtr3 queue1
```

pdmincfg utility: sets up a minimum InfoPrint configuration in InfoPrint Manager for AIX

Syntax

pdmincfg utility

```
▶▶—pdmincfg—|—-s—|—Servername—|▶▶
```

Description

Enter the **pdmincfg** utility to create a minimum InfoPrint configuration.

This minimum configuration consists of one server, one logical destination, one queue, and one actual destination. You can use this minimum configuration to verify that InfoPrint is properly installed and is operational. The **pdmincfg** utility

creates a minimal configuration appropriate for a small InfoPrint installation.

Flags

The **pdmincfg** utility uses this flag:

```
|-----|  
|  -s  |
```

Causes **pdmincfg** to start the specified server. If you do not specify this flag, but do specify the *ServerName*, InfoPrint does not start the server. If you do not request InfoPrint to start the server, InfoPrint assumes it is already up and running.

Arguments

The argument value identifies the specific object to which the utility applies.

Valid argument values for the **pdmincfg** utility are:

```
|-----|  
|  Servername  |
```

Specifies the name of the server that runs in the minimum configuration. *ServerName* defaults to the hostname.

Example

To set up a minimum configuration on a system with the server name of *serv1*, follow these steps:

1. Enter:

```
pdmincfg -s serv1
```

InfoPrint displays:

```
Your server print database will be stored in /var/pd/serv1.  
Press enter to continue or press CTRL-C to cancel the request.
```

Note: Your **PDBASE** environment variable setting determines the directories where InfoPrint stores your server print database.

2. Press Enter and InfoPrint displays:

Note: If the server does not exist, InfoPrint prompts you after message 5010-467. Type *y* and press Enter to create the server.

```
5010-467 Starting server serv1.  
5010-406 Creating default objects. Please wait.  
5010-405 Successfully started server serv1.  
5010-470 Creating logical destination serv1-lp.  
5010-471 Creating queue serv1-q.  
5010-472 Enabling logical destination serv1-lp.
```

Enter 1 or 2 for the type of actual destination to be created:

```
1 = Test actual destination that does not actually print to a printer  
device  
2 = Actual destination that uses your attributes file
```

3. You now have a choice of responses:

- To create a test actual destination to verify that InfoPrint is properly installed, enter **1**.
- To create an actual destination that represents a real printer device, follow these steps:
 - a. Enter **2**.

InfoPrint displays:

Enter the name of your destination attributes file:

- b. Enter the name of a file containing attributes that describe the destination you want to create. For example:

```
/usr/fred/attfiles/pp_tcpip.X
```

This example shows the full pathname of the file. If `/usr/fred/attfiles` is defined in your **PDPATH** environment variable, you can specify just the file name.

The file `pp_tcpip.X` contains information like this:

```
# TCP/IP-attached actual destination
destination-realization      =actual
attachment-type              =tcpip
destination-model            =InfoPrint4000
destination-tcpip-internet-address=martha.infoprint.com
destination-tcpip-port-number =5001
```

4. InfoPrint displays:

```
5010-476 Creating actual destination serv1-pp.
5010-477 Enabling actual destination serv1-pp.
5010-462 Your minimum configuration is now active:
```

```
Logical Destination: serv1-lp
```

```
|
```

```
v
```

```
Queue: serv1-q
```

```
|
```

```
v
```

```
Actual Destination: serv1-pp
```

5. To print a file named `test` on the actual destination you just created, enter:

```
pdpr -p serv1-lp test
```

pdmsg utility: displays information about a message in InfoPrint Manager for AIX

Syntax

pdmsg utility

```
▶▶ pdmsg [ -d ] [ -t ] MessageNumber ▶▶
```

Description

The **pdmsg** utility displays the text and description of an InfoPrint message at the command line. The **pdmsg** utility extracts the text and description from the appropriate message catalogs. If you do not specify the **-d** or **-t** flag with the utility, InfoPrint displays both the text and the message description.

Flags

The `pdmsg` utility uses these flags:

```
|-----|  
|  -d  |
```

Displays only the description of a message, which consists of a 7-digit message number, an explanation of the message, the system action, and the response.

```
|-----|  
|  -t  |
```

Displays only the text of a message, which consists of a 7-digit message number along with the actual words of the message itself. Underlined blanks in the text identify variable fields in the message text (also called message inserts). When InfoPrint actually issues messages, InfoPrint replaces the blanks with the appropriate variable information.

```
|-----|  
| MessageNumber |
```

The number of the InfoPrint message you want displayed. Valid message numbers range from 0420-001 through 0425-999 and 5010-001 through 5010-999; however, not every number in these ranges has an associated message.

Examples

- To view the text and description for InfoPrint message 5010-096, enter:

```
pdmsg 5010-096
```

InfoPrint displays:

```
5010-096 The value ____ is not supported for attribute ____.
```

```
5010-096
```

```
EXPLANATION: The server or destination does not support this value.
```

```
SYSTEM ACTION: InfoPrint could not process the request.
```

```
RESPONSE: Enter the command again and specify a value that is supported  
by the server and destination, or specify a destination that supports (by  
association) the value.
```

- To view only the text for InfoPrint message 5010-096, enter:

```
pdmsg -t 5010-096
```

InfoPrint displays:

```
5010-096 The value ____ is not valid not supported for attribute ____.
```

- To view only the description for InfoPrint message 5010-096, enter:

```
pdmsg -d 5010-096
```

InfoPrint displays:

```
5010-096
```

```
EXPLANATION: The server or destination does not support this value.
```

```
SYSTEM ACTION: InfoPrint could not process the request.
```

```
RESPONSE: Enter the command again and specify a value that is supported  
by the server and destination, or specify a destination that supports (by  
association) the value.
```

pdwsinitports utility: initialize or change the ports used by the InfoPrint Manager Web Server

Syntax

pdwsinitports utility

▶▶—pdwsinitports— BasePortNumber————▶▶

▶▶—pdwsinitports— -d————▶▶

▶▶—pdwsinitports— -h
-?————▶▶

Description

Use the **pdwsinitports** utility to initialize or change the ports used by the InfoPrint Manager Web Server. This utility either finds a range of ports on this system or you can specify a range of port number on his system for use by the Web server. By specifying a range of port numbers, you can avoid using port numbers that are used by or reserved for other programs. This utility can also be used to display the current port settings.

The **pdwsinitports** utility shuts down the InfoPrint Manager Web Server when it is run, and it starts the Web Server when it is complete. Because InfoPrint automatically initialized port numbers when it is installed, you should not have to run this utility normally.

The **pdwsinitports** utility initializes the ports used by InfoPrint Manager Web Server by reserving port numbers in the services file. On AIX systems, see the /etc/services file for the reserved port numbers. On Windows systems, see the %SystemRoot%\system32\drivers\etc\services for reserved port numbers. The **pdwsinitports** utility will not use port numbers that are used by or reserved for other programs. If InfoPrint Manager can not reserve port numbers, it will not start the InfoPrint Manager Web Server.

On system upgrades, the ports used by InfoPrint Manager might get removed from the services file. Use the **pdwsinitports** utility to re-initialize the InfoPrint Manager ports.

Flags

You can use these flags with the **pdwsinitports** utility:

▶▶— -d————▶▶

Displays the current port setting for the InfoPrint Manager Web Serve and indicates if the port is current active for any process.

▶▶— -h————▶▶

Displays help for the **pdwsinitports** utility.

Displays help for the **pdwsinitports** utility.

Argument

Valid argument values for the **pdwsinitports** utility are:



- Specifies the base for assigning ports, and it is normally a number that is a multiple of 1000. These ports are assigned:
 - HTTP Transport: *BasePortNumber*+ 80
 - HTTPS Transport: *BasePortNumber*+ 443

The default value is 14000.

When no *BasePortNumber* is specified on AIX, the **pdwsinitports** utility starts at 14000 and determines whether any of the desired ports are in use by checking `/etc/services`. When no *BasePortNumber* is specified on Windows, the **pdwsinitports** utility starts at 14000 and determines whether any of the desired ports are in use by checking `%SystemRoot%\system32\drivers\etc\services`. If any of the desired ports are in use, the **pdwsinitports** utility increments the range by 1000 and continues searching for a base that has the desired ports available. If the **pdwsinitports** utility reaches 64000 and no base range is available, an error is generated.

Examples

- To set the InfoPrint Manager Web Server to use ports in the 7000 area, enter:
`pdwsinitports 7000`
- To set the InfoPrint Manager Web Server to find a set of ports to use, enter:
`pdwsinitports`
- To display the current port settings and determine whether any are currently active, enter:
`pdwsinitports -d`

/etc/services

The InfoPrint Manager ports use these names in `/etc/services` with the **getservent** system APIs:

Description	Service Name
HTTP port	iprws_http
HTTPS port	iprws_https

rc.iprsap utility: start SAP daemons on InfoPrint Manager for AIX

Syntax

rc.iprsap utility

Description

Use this utility to start the InfoPrint Manager SAP callback daemons for each SAP system defined to use InfoPrint Manager as an OMS (Output Management System) and the SAPconnect daemon for each SAP system configured to use InfoPrint Manager as a fax server. `/etc/inittab` invokes the `rc.ipsap` utility to automatically restart the InfoPrint Manager SAP daemons listed in this file during reboot if you activate it through SMIT as follows:

- InfoPrint Printing System
 - Utilities
 - SAP Daemons

Note: For specific information about a menu choice, press the **F1** key for help.

As the administrator, you can edit the `/etc/rc.ipsap` file using a text editor, such as `vi`. Edit this file to include a `startcbd` line for each SAP System setup to receive callback notifications.

See “startcbd utility: starts the SAP callback daemon” on page 237 for more information.

Edit the `/etc/rc.ipsap` file to include a `StartSAPconnectd` line for each SAP system setup to send fax requests to InfoPrint Manager.

See “startsapconnectd utility: starts the SAPconnect daemon” on page 243 for more information.

rc.pd utility: restarts servers in InfoPrint Manager for AIX

Syntax

rc.pd utility

Description

`/etc/inittab` (or a program called from `/etc/inittab`) invokes the `rc.pd` utility to automatically restart the InfoPrint servers listed in `/etc/rc.pd.servers` during a reboot. As the administrator, you can edit the `rc.pd.servers` file using a text editor, such as `vi`. Edit this file to include a `startsrv` line for each server you want to start automatically.

setup utility: starts the InfoPrint installer in InfoPrint Manager for AIX

Syntax

setup utility

```
▶▶ setup -c [ -e ] [ -R ] [ -s FileSystem ]
▶▶ setup -C [ -e ] [ -L locale ] -n ServerName -p PortNumber
▶▶ [ -P DestinationName ] [ -R ] [ -s FileSystem ]
▶▶ setup -m [ -a ResponseFile ] [ -e ] [ -q ] [ -R ]
▶▶ [ -s FileSystem ]
▶▶ setup -M [ -a ResponseFile ] [ -e ] [ -q ] [ -R ]
▶▶ [ -s FileSystem ] [ -S ]
▶▶ setup -h
```

Description

Issue the **setup** utility to start the InfoPrint Installer. The InfoPrint Installer installs InfoPrint Manager for AIX, including an InfoPrint server and an InfoPrint AIX client, or the InfoPrint AIX client alone.

The AIX client allows users to enter InfoPrint commands on the command line for transmission to the InfoPrint server, which can be on another AIX system. The AIX client has no graphical user interface.

Note: You can install the InfoPrint server or InfoPrint AIX client in any of these languages:

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

If the InfoPrint AIX client and server do not use the same language, the InfoPrint server must run in English.

Flags

The **setup** utility uses these flags:

| `-a` |

Specifies a response file for use with an unattended installation. By default, unattended installations do not display any Installer panel. Further, when the **-a** flag is used, the default mount point is `/ip_remote`. All unattended installations must be performed using an InfoPrint Manager Software Server, not the InfoPrint Manager for AIX CD-ROMs.

| `-c` |

- Invokes the InfoPrint Installer graphical user interface (GUI) to install only the InfoPrint AIX client.

Note: The **-L**, **-n**, **-p**, and **-P** flags are not valid with this flag. The InfoPrint Installer GUI will prompt you to specify the locale, server name, port number, and optional default logical destination.

| `-C` |

- Invokes the InfoPrint Installer to install only the InfoPrint AIX client using the command line, without invoking the Installer GUI.

Note: If you use this flag, you must specify the **-n** and **-p** flags.

| `-e` |

Echos the Installer log updates to **stdout** as they occur.

| `-L locale` |

- Specifies the locale of the AIX client. The default is **en_US** (U.S. English).

Note: This flag is not valid with the **-c** flag. It is optional with the **-C** flag.

| `-m` |

Performs unattended installations on one or more remote systems. Before you can use this flag, you must create an InfoPrint Manager Software Server on the local machine. After the software server is in place, you must copy response files to its `/ip_remote/auto` subdirectory to specify the which installations to complete. The default mount point for unattended installation is `/ip_remote`. The **-m** flag performs the specified installations concurrently.

| `-M` |

Performs unattended installations like the **-m** flag, but the installations are performed serially. That is, an installation on the first system will complete before the installation on the second system begins.

|— `-n—ServerName`—|

- Specifies the name of the InfoPrint server.

Note: This flag is not valid with the **-c** flag. It is required with the **-C** flag.

|— `-p—PortNumber`—|

- Specifies the port number that the remote InfoPrint server is using for communications.

Note: This flag is not valid with the **-c** flag. It is required with the **-C** flag.

| `-P—DestinationName` |

- Specifies the default logical destination to which the InfoPrint AIX client submits jobs.

Note: This flag is not valid with the **-c** flag. It is optional with the **-C** flag.

| `-q` |

Displays the Installer panels during an unattended install.

| `-R` |

Replaces any currently installed version of the InfoPrint Installer on your AIX system with the Installer code from the InfoPrint CD-ROMs.

| `-s—FileSystem` |

- Specifies the file system where the installable software images can be accessed. For example, you could specify the file system that you defined for installing InfoPrint, or the drive where you mounted the InfoPrint server CD-ROM. The default mount point for all installations that use the Installer GUI is `/cdrom`. The default mount point for all unattended installations is `/ip_remote`.

Note: The `/cdrom` file system can be predefined.

| `-S` |

Saves the `.wlog` files from any prior installation. This flag is usually used with the **-M** flag to maintain a record of all installations performed on a machine as part of a serial sequence of unattended remote installations.

| -h |

Displays help for the **setup** utility.

Example

To install InfoPrint in the file system `/cdrom`, follow these steps:

1. Log onto AIX as **root**.
2. If available, insert the latest InfoPrint Manager server APAR Service CD-ROM into the drive. Otherwise, insert the gold InfoPrint Manager for AIX Server 1 CD-ROM into the drive.
3. If this is the first time you are running the InfoPrint Installer on this system, create the `/cdrom` file system. Enter:

```
smit cdrfs
```
4. Click **Add a CDROM File System**.
5. Complete the **Add a CDROM File System** panel.
 - a. In the **DEVICE Name** field, enter the identifier of your CD-ROM drive. If you do not know the identifier, click **List** in the AIXwindows version of SMIT, or press **PF4** in the ASCII version of SMIT, to see a list of CD-ROM drives. Select one.
 - b. In the **MOUNT POINT** field, enter `/cdrom`.
 - c. Click **OK** (AIXwindows version) or press **Enter** (ASCII version).
 - d. Press **F10** to exit from SMIT.
6. To mount the CD-ROM, enter this command on the AIX command line:

```
mount /cdrom
```
7. To read the `/readme.txt` file, enter:

```
dtpad /cdrom/readme.txt
```
8. Enter:

```
/cdrom/setup
```

startppo utility: starts the InfoPrint SMIT Operator's Interface in InfoPrint Manager for AIX

Syntax

startppo utility

```
▶▶ startppo [ -t widthxdepth+XOffset+YOffset ]
▶▶ startppo [ -h ]
▶▶ startppo [ -? ]
```

Description

Enter the **startppo** utility to start the InfoPrint SMIT operator's interface.

Flags

The **startppo** utility uses these flags:

|-----|
| -t |-----|

- Starts the ASCII (**tt**) version of the InfoPrint SMIT operator's interface. The ASCII version of the InfoPrint SMIT operator's interface has no graphics and is controlled with the keyboard.

If you do not specify the **-t** flag, **startppo** starts the AIXWindows version of the InfoPrint SMIT operator's interface. The AIXWindows version displays a graphic of a running man to indicate task progress and can be controlled either with the mouse or with the keyboard.

|-----|
| -g—widthxdepth+XOffset+YOffset— |-----|

Overrides the default size and position of the window for the AIXWindows version of the InfoPrint SMIT operator's interface.

| -h |-----|

Displays help for the **startppo** utility.

| -? |-----|

Displays help for the **startppo** utility.

Examples

- To start the ASCII version of the InfoPrint SMIT operator's interface, enter:
startppo -t
- To start the AIXWindows version of the InfoPrint SMIT operator's interface in an 800 by 500 window, enter:
startppo -g 800x500+100+100

start_server utility: starts a server for a Basic InfoPrint Installation in InfoPrint Manager for AIX

Syntax

start_server utility

►► start_server [-l] locale [-p] port [ServerName]

►► start_server -?

Description

Enter the **start_server** utility to create or restart a server configured for a basic InfoPrint installation. A server:

- Manages the validation, routing, and scheduling of jobs
- Manages the printing or transmission process
- Contains logical destinations, queues, and actual destinations

Three possible conditions can exist when you issue this utility:

- If the server name you specify with the utility (or the default server name) does not exist, InfoPrint creates the server on the AIX processor from which you enter the utility and then starts the new server.
- If the server name does exist but is not currently running, InfoPrint displays status information and issues a message when it has successfully restarted the server.
- If the server name does exist and it is currently running, InfoPrint displays a message that shows the server is already operational.

Note: Use **start_server** instead of **startsrv** when both these conditions are true:

- You want to configure the server for a basic InfoPrint installation. **start_server** always configures a new server for a basic installation, while **startsrv** defaults to a standard installation.
- You do not want to be prompted for confirmation if the server does not already exist. **start_server** never prompts, while **startsrv** prompts by default.

Flags

The **start_server** utility uses these flags:

| `-l` *locale* |

Lets you specify the locale for InfoPrint messages in a specific language. If you do not specify this flag, the default is your current locale.

| `-p` *port* |

- Lets you specify the port number when starting a server in a locale other than the default locale. The port number you assign must not conflict with port numbers in use by other processes. The file `/etc/services` lists the port numbers reserved by other processes.

If you do not specify this flag, the port defaults to the value of the **PD_SOCKET** environment variable, if any, then to 6874.

Note: When selecting your own port number, always increment the choice by two because the InfoPrint server uses two numbers: the one you specify and the next one, for example, 6874 and 6875.

| `-?` |

Displays help for the **start_server** utility.

Arguments

The argument value identifies the specific object to which the utility applies.

The valid argument value for the **start_server** utility is:

Flags

The **startsrv** utility uses these flags:

| _____ |
| -c |

Configures a new server for a basic InfoPrint installation. If you do not specify this flag, InfoPrint configures the server for a standard installation. This flag has no effect on an existing server.

| _____ |
| -F |

- Forces creation of the server if it does not already exist. InfoPrint does not display confirmation prompts (if any).
If you do not specify this flag and if the server does not already exist, InfoPrint prompts you to confirm whether to create the server.

| _____ |
| -l | *locale* |

Lets you specify the locale for InfoPrint messages in a specific language. If you do not specify this flag, the default is your current locale.

| _____ |
| -p | *port* |

- Lets you specify the port number when starting a server in a locale other than the default locale. The port number you assign must not conflict with port numbers in use by other processes. The file **/etc/services** lists the port numbers reserved by other processes.
If you do not specify this flag, the port defaults to the value of the **PD_SOCKET** environment variable, if any, then to 6874.

Note: When selecting your own port number, always increment the choice by two because the InfoPrint server uses two numbers: the one you specify and the next one, for example, 6874 and 6875.

| _____ |
| -? |

Displays help for the **startsrv** utility.

Arguments

The argument value identifies the specific object to which the utility applies.

The valid argument value for the **startsrv** utility is:

| _____ |
| *ServerName* |

Assigns a name to a new server or specifies the name of the server to restart. *ServerName* defaults to the hostname.

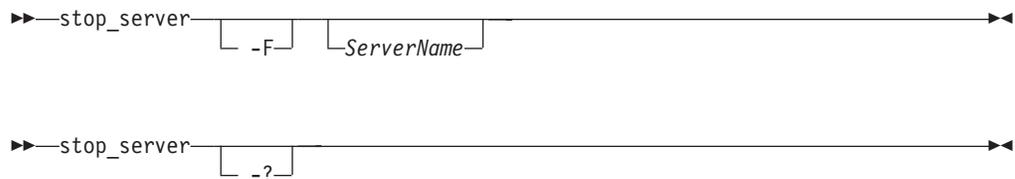
Examples

- To create a server with the name serv1 and configure it for a standard installation, enter:
startsrv -F serv1
- To create a server with the same name as the host and configure it for a basic installation, enter:
startsrv -c -F
- To restart serv1, enter:
startsrv serv1

stop_server utility: shuts down a server in InfoPrint Manager for AIX

Syntax

stop_server utility



Description

Enter the **stop_server** utility to shut down a server.

Flags

The **stop_server** utility uses these flags:



Forces the server to shut down as soon as possible. If you do not specify this flag, the server shuts down when all currently printing jobs have finished printing.



Displays help for the **stop_server** utility.

Arguments

The argument value identifies the specific object to which the utility applies.

The valid argument value for the **stop_server** utility is:



Specifies the name of the server to shut down. *ServerName* defaults to the hostname.

Examples

- To shut down a server with the same name as the host as soon as possible, enter:
`stop_server -F`
- To shut down serv1 after all currently printing jobs have finished printing, enter:
`stop_server serv1`
- To shut down the server DeServ, which is running in the locale De_DE, enter:
`export LC_ALL=De_DE`
`stop_server DeServ`
`export LC_ALL=`

Daemon utilities for InfoPrint Manager for AIX

This section describes these InfoPrint daemon utilities:

- “lsippgw utility: list the IPP ports on InfoPrint Manager for AIX”
- “mvsprsd utility: starts the MVS download receiver daemon” on page 225
- “pcl2afpd utility: starts the pcl2afpd daemon” on page 230
- “ps2afpd utility: starts the ps2afpd daemon” on page 233
- “startcbd utility: starts the SAP callback daemon” on page 237
- “stopcbd utility: stops the SAP callback daemon” on page 239
- “startippgw utility: start an IPP gateway on InfoPrint Manager for AIX” on page 240
- “stopippgw utility: stop an IPP gateway on InfoPrint Manager for AIX” on page 241
- “startnotd utility: starts the notifyd daemon” on page 242
- “stopnotd utility: stops the notifyd daemon” on page 242
- “startsapconnectd utility: starts the SAPconnect daemon” on page 243
- “stopsapconnectd utility: stops the SAPconnect Daemon” on page 244

lsippgw utility: list the IPP ports on InfoPrint Manager for AIX

Syntax

lsippgw utility

▶▶—lsippgw—▶▶

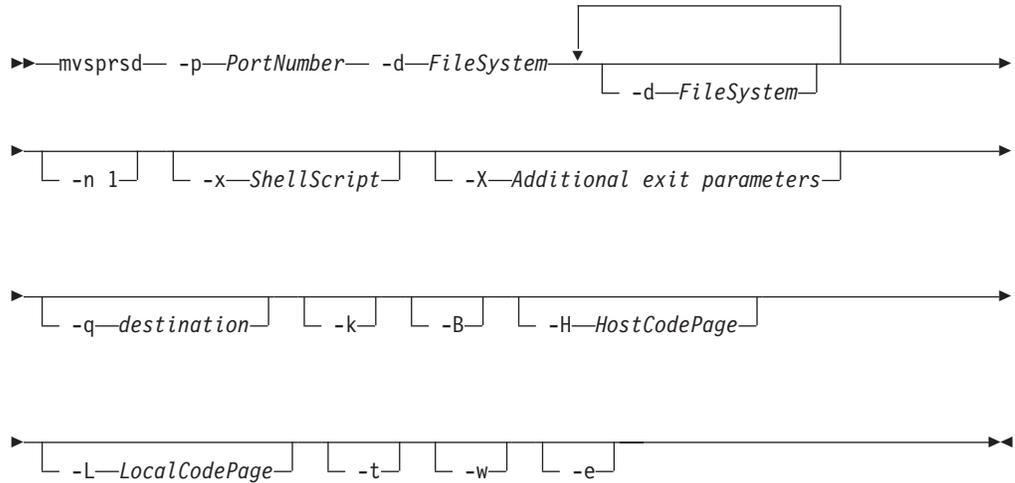
Description

Use the **lsippgw** utility to list all the ports that the IPP gateway daemons are listening to.

mvsprsd utility: starts the MVS download receiver daemon

Syntax

mvsprsd utility



Description

Use the **mvsprsd** utility to start the MVS Download Receiver daemon. This daemon receives the data that MVS Download sends from the Job Entry Subsystem (JES) spool on an MVS system.

You can specify that the **mvsprsd** daemon starts whenever the system starts by including the **mvsprsd** command in one of the files that are executed when the AIX operating system is initialized. The two types of files that are read during AIX initialization are */etc/rc* files and the */etc/inittab* files.

If the **mvsprsd** daemon stops running for some reason, you can restart it by issuing this command:

```
/usr/lpp/psf/bin/mvsprsd -p PortNumber -d FileSystem -x ShellScript  
-q destination -k
```

If your job does not print on InfoPrint, you might be able to restart the shell script process with the downloaded file and downloaded print-options string. If you specify the **-k** flag on the print command, you can use this command to restart the shell script with its required parameter list:

```
/usr/lpp/pd/bin/mvsprpsm.sh FileName.PRD "$(cat string.JCL)" destination
```

where *FileName.PRD* represents the file successfully downloaded to InfoPrint as **MVS_system_name.jobname.dataset_name.forms_name.yyyyddd.hhmmsstABCD.PRD**; and where *string.JCL* represents the MVS print options string that is saved to a file named in this format:

MVS_system_name.jobname.dataset_name.forms_name.yyyyddd.hhmmsstABCD.JCL.

Note: The string **/usr/lpp/pd/bin/mvsprpsm.sh** refers to the shell script that is provided with this command. Check to see that your installation has not modified this shell script or added another shell script before specifying this value.

Flags

The **mvsprsd** daemon utility uses these flags:

|— -p—*PortNumber*—|

Specifies the socket port number for the daemon in the valid range (5001-64000). Do not use 8251 and 8253, which are used by InfoPrint for the PCL and PostScript data transforms. The port number must be the same as the port number specified in the routing-control data set used by MVS Download.

|— -d—*FileSystem*—|
|— -d—*FileSystem*—|

- Specifies a file system where InfoPrint stores the received file until the shell script you specify in the **-x** flag processes and deletes the file. The **mvsprsd** daemon must have write permission for the file system.

You must specify at least one file system. You can specify up to ten file systems. If you specify more than one file system, the file system having the most available space is used. To specify more than one file system, specify the entire flag again:

-d FileSystem1 -d FileSystem2 ...

|— -n 1—|

If you are working with multiple data set support, you must specify **-n 1** when you start the **mvsprsd** daemon on AIX. The **-n 1** option restricts the **mvsprsd** daemon to receive one data set at a time.

If you did not previously specify **-n 1** and you received multiple files concurrently, you might wish to start more than one instance of the **mvsprsd** daemon (using different port numbers) and configure new MVS Download printers on MVS to communicate with them.

For more information about the limitations of multiple data set support with MVS Download, see the chapter entitled "Printing data sets from an MVS system through MVS Download" in the *InfoPrint Manager for AIX: Procedures*.

Note: If you enable multiple data set support using Download for z/OS and you need to configure multiple MVS Download FSAs, you must have one **mvsprsd** daemon for each Download FSA that is submitting jobs to the InfoPrint Manager server. If you don't do this and two Download for z/OS FSA systems send jobs at the same time, the job data sets can become intermingled and errors or incorrect output can result. This restriction does not apply to AFP Download Plus for z/OS. Multiple AFP Download Plus FSAs can be enabled for multiple-dataset and use one **mvsprsd** daemon.

|— -x—*ShellScript*—|

- Specifies the complete path name and file name for the shell script that the daemon executes to process the files sent by MVS Download. You can specify the file name of the shell script without the path name and it will default to the `/usr/lpp/pd/bin` path.

The daemon forks a child process to execute the shell script after each successfully received file. If you do not specify the path name of a shell script, the received files are not printed and remain on the file system.

InfoPrint provides a shell script, `mvsprpsm.sh`, which submits a file to the `pdpr` command for printing and deletes the file if the file prints successfully. This shell script is installed in the `/usr/lpp/pd/bin` directory.

`-X`—Additional exit parameters

- If you are using custom exits, consult with the person responsible for the custom exits to determine what to enter here.
- With PTF U807769 for InfoPrint Manager for AIX, scripts provided by InfoPrint Manager support additional exit parameters. These parameters are not supported on previous versions of the InfoPrint Manager script. They are not supported when custom scripts are used. The options are specified on the `-X` parameter of `mvsprsd` and have this syntax:

failed_job=discard | print

This parameter only has an effect when the AFP Download Plus is used. The parameter values have this meaning:

discard

If AFP Download Plus detected an error in any file in the job, discard the entire job. This is the same behavior as MVS Download multiple data set. This behavior is desirable to print outsource companies. This is the default if this keyword is not specified.

print

If AFP Download Plus detected an error in any file in the job, print the job including the error message provided by AFP Download Plus. The error messages provided by AFP Download Plus are printed where the file would normally be printed in the job. This is similar behavior to PSF for z/OS. This behavior is desirable for in-house print shops. By default, AFP Download Plus provides both the generic message and the error messages that identify the cause of the failure.

retry_count=n

This parameter identifies the number of times the `pdpr` should be retried. The default value is 0. A value of 0 indicates the `pdpr` should not be retried. This parameter can have values from 0 to 32767.

retry_interval=n

This parameter identifies the time interval in seconds between `pdpr` retries. The default value is 60. A value of 0 indicates the `pdpr` should be retried immediately. This parameter can have values from 0 to 32767.

Notes:

1. These options are only available if the InfoPrint Manager provided script that is part of PTF U807769 is used. If an older InfoPrint Manager provided script is used they are ignored. If a custom script is used, these options should not be used.

- Using these options in combination with `-n` or `-w` might make the receiver inaccessible for longer periods of time to the host. You might need to modify the z/OS retry interval or count to compensate.

`-q—destination`

- Specifies the name of the logical destination to which the shell script can submit the file. If you specify a logical destination, you should also specify the name of a shell script on the `-x` flag that the program uses to submit files to the logical destination.

If you specify this shell script on the `-x` flag, you must specify the `-q` flag or `mvsprsd` displays its command syntax and exits.

If you do not specify a logical destination name, the received files are not printed and remain on the file system.

`-k`

Specifies that the MVS print-options string is kept on the file system and can be used later for error recovery. If a file is transferred from MVS to AIX successfully, but does not print because of a problem, it is recommended that you specify this option so that the job can be resubmitted for printing from the AIX operating system.

`-B`

Specifies that a limited EBCDIC to ASCII conversion should be performed on received MVS parameters. Upper and lowercase alphabetic, numerics, and a limited set of special characters are converted. All other characters are changed to an underscore character.

`-H—HostCodePage`

Specifies the Host code page used when the JCL was submitted

When you specify the `-H` flag, and the conversion from EBCDIC to ASCII fails, the receiver uses the default conversion table (inter-operable Latin-1 characters).

`-t`

- Specifies tracing. The trace file is named `trace.log.port` and is created in the AIX working directory. Only one previous trace file is maintained, and it is called `trace.log.BAK.port`. The trace file is moved to the backup trace file when the file exceeds 10 MB in size at a document boundary.

If the provided shell script is used with the `-x` flag, the files passed to the script and the intermediate files generated by the script will not be deleted when the script completes processing. You must delete these files manually.

`-L—LocalCodePage`

Specifies the Local code page where the MVS Download receiver is running.

When you specify the **-L** flag, you must also specify the **-H** flag.

When you specify the **-H** and **-L** flags, and the conversion from EBCDIC to ASCII fails, the receiver uses the default conversion table (inter-operable Latin-1 characters).

Note: When you specify the **-B** and **-H** flags, and optionally, the **-L** flag, together, and the code page conversion fails, the NLS characters in the JCL parameter values are converted to an underscore character (`_`) so that an incorrect character is not inserted into the DBCS environment.

`-w`

- Specifies the script return code should be monitored. A zero return code from the script causes the daemon to indicate success to the mainframe. A non-zero return code from the script causes the daemon to indicate failure to the mainframe.

When `-w` is specified and the script reports an error on a file in an multiple data set job, the mainframe might retry the file. The script must be prepared to get the same file again. The script can either process it again or fail it.

In addition, any data written to **stderr** by the script might be provided to the mainframe with the failure indicator.

Notes:

1. The `-w` option also implies the `-n 1` option.
2. Use of the `-w` option degrades overall throughput of the receiver since the receiver maintains the connection with the mainframe until the script completes. Degradation depends on the length of time the script runs, whether the `-n 1` option is currently being used and whether multiple FSAs send files to the daemon. Little or no degradation is seen for customers who have a single FSA that sends jobs to the daemon and currently use the `-n 1` option. The most degradation is seen for customers who have multiple FSAs sending jobs to the daemon and do not currently use the `-n 1` option.
3. For MVS Download and existing AFP Download Plus customers without the AFP Download Plus APAR OA15317, TCP/IP inactivity time-outs can occur between the mainframe and the daemon. Customers should make sure that their inactivity time-out settings are larger than the time it takes their script to run. Retry settings in the script can also increase the necessary time. For AFP Download Plus customers with the AFP Download Plus APAR OA15317, the TCP/IP inactivity time-out needs to be set above 90 seconds.
4. When both `-w` and `-e` are specified, messages generated by the script might be also provided to AFP Download Plus if requested by AFP Download Plus.

`-e`

Specifies internal errors or script errors be reported to AFP Download Plus for assistance in problem determination. By default, this function is turned off. The `-e` option on **mvsprsd** must be specified to report internal errors. In addition, the `-w` option must be specified to report script/exit messages.

Note: If you create your own configuration file, you must specify it with the **-C** flag of the **pcl2afp** transform command when you transform PCL files.

Flags

The **pcl2afpd** daemon utility uses the following flag:

|-----|
| -C ConfigurationFile |

- Specifies the configuration file InfoPrint uses with the transform. The value is:

ConfigurationFile

A valid PCL configuration file name. If you do not specify a file, InfoPrint uses the file **/usr/lpp/psf/pcl2afp/pcl2afpd.cfg**.

Configuration file keywords and values

The **pcl2afpd.cfg** file contains the same keywords as the **pcl2afp.cfg** file except that the transform daemon configuration file does not have the **server** keyword. The **pcl2afpd.cfg** contains several additional keywords.

For the keywords common to both configuration files, see “The **pcl2afp** and **pcl2afpd** configuration files” on page 377.

The PCL transform daemon configuration file can also contain these keywords:

|-----|
| device_controls= |
| plex, inputn=(pcl_bin=m) inputn= |

- Specifies whether to recognize the **plex** command in the PCL data stream, and optionally, how to associate the AFP input tray (**inputn**, where *n* is between 1 and 255) with the pcl bin (**pcl_bin=m**, where *m* is between 0 and 59). When you do not specify **inputn=(pcl_bin=m)** with **plex**, InfoPrint recognizes the **plex** command with no tray mappings. If you do not specify **plex** and tray mapping is not supplied, InfoPrint uses the settings in the default formdef (which is duplex).

Note: You can specify **inputn=(pcl_bin=m)** up to twenty times.

|-----|
| log_file= |
| WorkDirectory/pcl2afpd.log |
| PathName |

- Specifies the file in which the transform daemon logs errors and messages when it converts a data stream from PCL to an AFP data stream.

Valid keyword values are:

WorkDirectory/pcl2afpd.log

This is the default log file, where *WorkDirectory* is the value of the **work_directory** keyword. The default work directory is **/var/psf/pcl2afp**.

PathName

The full path name of a log file

|mail_command= /usr/bin/mail
PathName |

- Specifies the executable file that the **pcl2afp** command uses to send transform status notifications.

Valid keyword values are:

/usr/bin/mail

The AIX **mail** command

PathName

The full path name of a communication program

|notify= root
UserID |

- Identifies the user to receive notification about problems found during transformation of the PCL file into an AFP data stream file. If a particular user runs most of the PCL transform jobs, you might want to send notifications to that person using this keyword.

Valid keyword values are:

root The user at the server console

UserID

An AIX user ID

|pcl_program= /usr/lpp/psf/bin/pcl6
PathName |

- Specifies which PCL-to-AFP transform program (the PCL interpreter) to run. Generally, you will not change this value.

Valid keyword values are:

/usr/lpp/psf/bin/pcl6

The default PCL interpreter

PathName

The full path name of a PCL interpreter file

|work_directory= /var/psf/pcl2afp
PathName |

- Specifies the path to the directory where the transform daemon puts its work files. The transform daemon must have read, write, and execute permissions to this directory. The transform daemon is owned by the **root** user, but runs as **daemon**, and is in the **printq** group.

Values are:

/var/psf/pcl2afp

The default work directory

PathName

A directory path

Examples

- To restart the **pcl2afpd** daemon with the default configuration file, enter:
pcl2afpd

Notes:

1. If you have not set the **PATH** environment variable to include **/usr/lpp/psf/bin**, you must enter the path name with the **pcl2afpd** daemon.
 2. Anyone can start the **pcl2afpd** daemon, but only a person with **root** user authority can stop it.
- To restart the **pcl2afpd** daemon with the configuration file **myfile.cfg**, which is installed in the directory **/usr/lpp/psf/pcl2afp**, enter:
pcl2afpd -C /usr/lpp/psf/pcl2afp/myfile.cfg

Files

/usr/lpp/psf/bin/pcl2afpd
Transform daemon

/usr/lpp/psf/pcl2afp/pcl2afpd.cfg
pcl2afpd daemon configuration file

/usr/lpp/psf/bin/pcl6
PCL interpreter program

ps2afpd utility: starts the ps2afpd daemon

Syntax

ps2afpd utility

▶▶ ps2afpd [-C ConfigurationFile] ▶▶▶▶

Description

Use the **ps2afpd** utility to start the **ps2afpd** daemon. The **ps2afpd** daemon manages the interpreter portion of the InfoPrint PostScript and PDF transform programs. You must start the **ps2afpd** daemon somewhere on the network before you can use the **ps2afp** or **pdf2afp** transform command to transform PostScript or PDF data streams for printing with InfoPrint on IPDS printers.

The **startsrvc** or **start_server** utility automatically starts the **ps2afpd** daemon if it is installed and not running.

If the **ps2afpd** daemon stops running, you can restart it by issuing the following command:

```
/usr/lpp/psf/bin/ps2afpd
```

InfoPrint uses the **ps2afpd** daemon configuration file to determine the default parameters of the **ps2afpd** daemon. The **/usr/lpp/psf/ps2afp/ps2afpd.cfg** file is installed with InfoPrint, and InfoPrint uses it as the default configuration file. You can, however, copy the configuration file, use an AIX editor to edit the copy of the file, and rename it so that you can customize the **ps2afpd** daemon for your applications. After you make the modifications, you specify the new configuration file with the **-C** flag of the **ps2afpd** daemon utility.

Note: If you create your own configuration file, you must specify it with the **-C** flag of the **ps2afp** transform command when you transform PostScript or PDF files.

Flags

The **ps2afpd** daemon utility uses the following flag:



- Specifies the configuration file InfoPrint uses with the transform. The value is:

ConfigurationFile

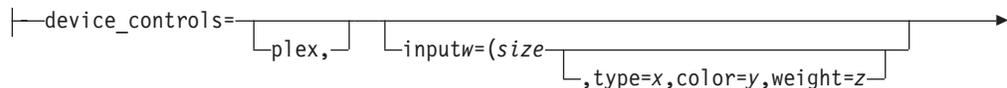
A valid PostScript configuration file name. If you do not specify a file, InfoPrint uses the file `/usr/lpp/psf/ps2afp/ps2afpd.cfg`.

Configuration file keywords and values

The **ps2afpd.cfg** file contains the same keywords as the **ps2afp.cfg** file except that the transform daemon configuration file does not have the **server** keyword. The **ps2afpd.cfg** contains several additional keywords.

For the keywords common to both configuration files, see “The ps2afp and ps2afpd configuration files” on page 404.

The PostScript transform daemon configuration file can also contain the following keywords:



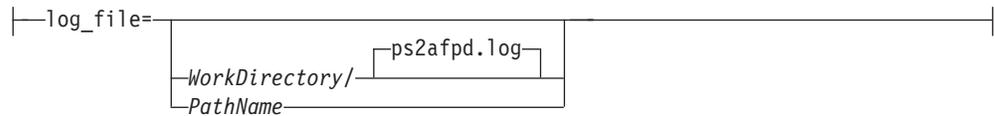
- Specifies whether to recognize the `plex` command, and optionally, how to associate the AFP input tray (**inputw**) with the contents of the output bin. When you specify **inputw**, you must specify **size**, where **size** is a text string like `letter`, `legal`, `a3`, `a4`, `b4`, `b5`, `ledger`, or a dimension like `8.5x11i`. Dimensions can be specified as inches (`i`), millimeters (`m`), or points (`p`). The other three input descriptors (**type**, **color**, and **weight**) are optional, but when you specify them, you must separate them with a comma and no spaces.

When you do not specify **inputw=size...** with **plex**, InfoPrint recognizes `plex` mappings with no additional information for the tray contents.

Note: You can specify



as many times as you need to.



- Specifies the file in which the transform daemon logs errors and messages when it converts a data stream from PostScript or PDF to an AFP data stream.

Valid keyword values are:

WorkDirectory/ps2afpd.log

This is the default log file, where *WorkDirectory* is the value of the **work_directory** keyword. The default work directory is **`/var/psf/ps2afpd`**.

PathName

The full path name of a log file



- Specifies the executable file that the **ps2afpd** command uses to send transform status notifications.

Valid keyword values are:

/usr/bin/mail

The AIX **mail** command

PathName

The full path name of a communication program



- Identifies the user to receive notification about problems encountered during transformation of the PostScript or PDF file into an AFP data stream file. If a particular user runs most of the PostScript and PDF transform jobs, you might want to send notifications to that person using this keyword.

Valid keyword values are:

root The user at the server console

UserID

An AIX user ID



- To use an OPI server, uncomment the line for **`opi_server_resolution_program=/usr/local/es/psresolve -onoincludeheliosdicts helioprintqueue`** in the **`ps2afpd.cfg`** file. This line specifies the executable to run to resolve OPI comments. The example shows the default path for Helios EthershareOPI. This includes any command line parameters that are needed. The Helios program should have the **`-onoincludeheliosdicts`** option specified, and it requires a Helios

print queue to be specified on the command line. This print queue needs to be configured through the Helios Ethershare software, although it is not used by InfoPrint for printing.

For more information on the use of the OPI Server with InfoPrint Manager for AIX, go to www.infoprint.com.

ps_program=
 PathName

- Specifies which Postscript-or-PDF-to-AFP transform program (the PostScript interpreter) to run. Generally, you will not change this value. If you do change it, you must change the value of the **ps_init_file** keyword to specify an initialization file at the same level.

Valid keyword values are:

/usr/lpp/psf/bin/ps2afpi

The PostScript Level 3 transform

PathName

The full path name of a PostScript interpreter file

ps_init_file=
 PathName

- Specifies the PostScript initialization program to use with the PostScript interpreter. This file specifies the types of messages that the PostScript interpreter reports. Generally, you will not change this value. If you do change it, you must change the value of the **ps_program** keyword to specify a PostScript interpreter at the same level.

Valid keyword values are:

/usr/lpp/psf/ps2afp/ps2afp.ps

The PostScript Level 3 initialization file

PathName

The full path name of an initialization file

work_directory=
 PathName

- Specifies the path to the directory where the transform daemon puts its work files. The transform daemon must have read, write, and execute permissions to this directory. The transform daemon is owned by the **root** user, but runs as **daemon**, and is in the **printq** group.

Note: Only one **ps2afpd** can use the **work_directory** at a time. It cannot be shared.

Values are:

/var/psf/ps2afp

The default work directory

PathName

A directory path

Examples

- To restart the **ps2afpd** daemon with the default configuration file, enter:
ps2afpd

Notes:

1. If you have not set the **PATH** environment variable to include **/usr/lpp/psf/bin**, you must enter the path name with the **ps2afpd** daemon.
 2. Anyone can start the **ps2afpd** daemon, but only a person with **root** user authority can stop it.
- To restart the **ps2afpd** daemon with the configuration file **myfile.cfg**, which resides in the directory **/usr/lpp/psf/ps2afp**, enter:
ps2afpd -C /usr/lpp/psf/ps2afp/myfile.cfg

Files

/usr/lpp/psf/bin/ps2afpd
PostScript daemon

/usr/lpp/psf/bin/ps2afp
PostScript transform executable

/usr/lpp/psf/bin/pdf2afp
PDF transform executable (linked to **/usr/lpp/psf/bin/ps2afp**)

/usr/lpp/psf/ps2afp/ps2afpd.cfg
ps2afpd daemon configuration file

/usr/lpp/psf/ps2afp/ps2afp.cfg
ps2afp command configuration file

/usr/lpp/psf/bin/ps2afpi
PostScript level 3 interpreter program

/usr/lpp/psf/bin/ps2afpi.vm
PostScript interpreter program initial virtual memory

/usr/lpp/psf/ps2afp/ps2afp.ps
PostScript initialization file

/usr/lpp/psf/ps2afp/ps2afpe.ps
PostScript initialization file for extended error reporting

/usr/lpp/psf/ps2afp/psfonts.map
Default PostScript font mapping file

/var/psf/psfonts
User-defined PostScript fonts file

startcbd utility: starts the SAP callback daemon

Syntax

startcbd utility

► startcbd—*SystemName*—*HostName*—*InstanceID*—*User*—*Client*—*Password*—►
► *Language*—►
└─31h─┘

Description

Use the **startcbd** utility to start a **sapcbd** daemon. The **sapcbd** or SAP Callback daemon logs onto an SAP system and delivers notifications from InfoPrint Manager servers to the SAP system. You should start only one **sapcbd** for each SAP system for which you have configured InfoPrint Manager as an Output Management System (OMS). All SAP instances sharing the same database form one SAP system.

See “rc.iprsap utility: start SAP daemons on InfoPrint Manager for AIX” on page 213 for information about having SAP Callback daemons start on system reboot.

Each **sapcbd** daemon has a monitor that will restart if it stops for some reason. To stop it, to move it to another machine for example, use the “stopcbd utility: stops the SAP callback daemon” on page 239.

Arguments

The **startcbd** utility uses these arguments:

|—*SystemName*—|

Specifies the three character SAP system name.

|—*HostName*—|

Specifies the name of the host where you want the SAP Callback daemon to log onto the SAP system.

|—*InstanceID*—|

Specifies the SAP Instance ID you want the SAP Callback daemon to log onto.

|—*User*—|

Specifies the userid defined for the SAP Callback daemon to log on with. This needs to be a userid of CPIC type with XOMI permissions.

|—*Client*—|

Specifies the SAP client for the SAP Callback daemon to log onto.

|—*Password*—|

Specifies the password for the SAP Callback daemon to log on with.

|—*Language*—|

Specifies the language for the SAP Callback daemon to log on with.

|—*31h*—|

An extra argument to specify that the SAP Callback daemon is for a 3.1h or 3.1i system.

Examples

- To start the **startcbd** daemon to support SAP Release 4 System TST after you have:

- Configured InfoPrint Manager as an OMS in TST
- Created a CPIC user for the **sapcbd** daemon
- Identified which instance and client you want the **startcbd** to log onto

Then you would enter:

```
startcbd TST ibmbtt15 15 ibm 030 ipmpass EN
```

- To start the **startcbd** daemon to support SAP Release 3.1 System TST after you have:

- Configured InfoPrint Manager as an OMS in TST
- Created a CPIC user for the **sapcbd** daemon
- Identified which instance and client you want the **startcbd** to log onto

Then you would enter:

```
startcbd TST ibmbtt15 15 ibm 030 ipmpass EN 31h
```

stopcbd utility: stops the SAP callback daemon

Syntax

stopcbd utility

```
▶▶—stopcbd—SAPSystemName—————▶▶
```

Description

Use the **stopcbd** utility to stop the **sapcbd** daemon or SAP Callback daemon for an SAP system and stop its monitor.

Arguments

The **stopcbd** utility uses these argument:

```
|—SAPSystemName—————|
```

Specifies the three character ID of the SAP system that the **sapcbd** daemon is supporting. This is the specific **sapcbd** daemon to stop.

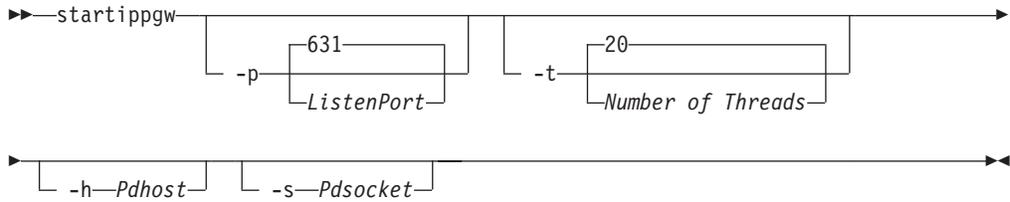
Examples

To stop or shutdown the **sapcbd** daemon for SAP System PRD, enter:

```
stopcbd PRD
```

startippgw utility: start an IPP gateway on InfoPrint Manager for AIX

Syntax



Description

Use the **startippgw** utility to start an IPP gateway daemon.

If you start an IPP gateway daemon on a different port than the default port, make sure that the IPP client you are using allows the port to be configured. This is necessary because most IPP clients use Port 631 by default. In other words, you must use an IPP client that lets you configure the port if you plan to start an IPP gateway daemon on a different port than 631. When using a different port than 631, you must update `/etc/services` with the unique port number.

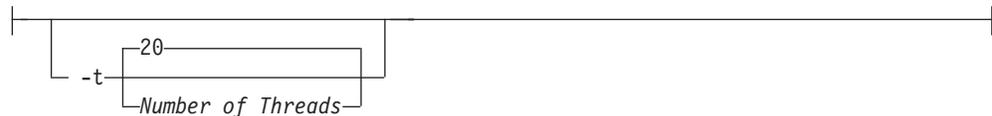
Arguments

The **startippgw** utility uses these arguments:

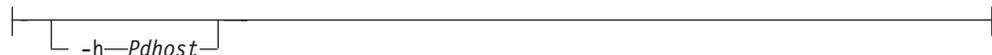


Specifies the port where the IPP gateway listens. The default is port 631.

If you start an IPP gateway on a port other than 631, InfoPrint Manager does not update `/etc/services`. Therefore, you need to update `/etc/services` manually when you start an IPP gateway on a port other than 631.



Specifies the number of threads in the connection thread pool. The default is 20. There is no limit on the number of threads.



Identifies the host of the InfoPrint Manager server to send the jobs to. When not specified, the InfoPrint Manager server follows the Configuration logic to define the host and socket.

`-s Pdsocket`

Identifies the port of the InfoPrint Manager server to send the jobs to. When not specified, the InfoPrint Manager server follows the Configuration logic to define the host and socket.

Configuration logic

InfoPrint Manager determines which server host and server port to use based on these sequence:

1. Server host and server port specified with the **startippgw** utility or the SMIT interface.
2. Server host and server port specified with the PDHOST and PD_SOCKET environment variables.
3. Extracts the InfoPrint Manager server port based on the locale in `/etc/pdserver.conf`.
4. Uses the defaults for PDHOST=localhost and PD_SOCKET=6874.

Note: This configuration logic enables multiple IPP gateways to run on a single machine communicating with one or more IPM servers.

Examples

To start the **startippgw** daemon with a default port of 631 and a default of 20 threads in the connection thread pool, enter:

```
startippgw
```

To start the **startippgw** daemon with a default port of 631 and 35 threads in the connection thread pool, enter:

```
startippgw -t 35
```

To start the **startippgw** daemon with a listen port of 815 and a default of 20 threads in the connection thread pool, enter:

```
startippgw -p 815
```

To start the **startippgw** daemon with a server host of myhost and a port or socket of 7963, enter:

```
startippgw -h myhost -s 7963
```

stopippgw utility: stop an IPP gateway on InfoPrint Manager for AIX

Syntax

```
▶▶ stopippgw 631  
PortNumber ▶▶
```

Description

Use the **stopippgw** utility to stop an IPP gateway daemon.

Arguments

The **stopippgw** utility uses these argument:



Specifies the port where the IPP gateway listens. The default is port 631.

Examples

To stop the **stopippgw** daemon with a default port of 631, enter:

```
stopippgw
```

To stop the **stopippgw** daemon with a port of 815, enter:

```
stopippgw 815
```

startnotd utility: starts the notifyd daemon

Syntax

startnotd utility

```
▶▶—startnotd—▶▶
```

Description

Use the **startnotd** utility to start the **notifyd** daemon. The **notifyd** daemon receives and stores notification messages for all users requesting notification by deliver-method message. Only one notification daemon needs to be running for each InfoPrint Manager cell or domain; one notification daemon receives notifications from and services all InfoPrint Manager servers sharing the same name space.

With InfoPrint Manager for AIX, you can specify that the **notifyd** daemon starts whenever the system starts or is rebooted by using the InfoPrint Manager SMIT panels on AIX.

The **notifyd** daemon has a monitor that will restart it if it ever stops running. If you want to stop it, to move it to another machine for example, use the "stopnotd utility: stops the notifyd daemon."

stopnotd utility: stops the notifyd daemon

Syntax

stopnotd utility

```
▶▶—stopnotd—▶▶
```

Description

Use the **stopnotd** utility to stop the **notifyd** daemon and its monitor.

To start **notifyd**, see “startnotd utility: starts the notifyd daemon” on page 242.

startsapconnectd utility: starts the SAPconnect daemon

Syntax

startsapconnectd utility

```
▶—startsapconnectd—SAPDestinationName—SAPSystemName—————▶  
▶—logicalDestinationName—SAPLogonuserid—SAPLogonclient—SAPLogonpassword————▶  
▶—SAPLogonlanguage—————▶▶
```

Description

Use the **startsapconnectd** utility to start an SAPconnect daemon. The SAPconnect daemon (**sapconnd**) registers with a SAP system and receives fax requests from the SAP system and delivers them to an InfoPrint Manager logical destination. You should start only one SAPconnect daemon for each SAP system.

To stop the SAPconnect daemon, to move it to another machine for example, use the “stopsapconnectd utility: stops the SAPconnect Daemon” on page 244.

Arguments

The **startsapconnectd** utility uses these arguments:

```
|—SAPDestinationName—————|
```

Specifies the identification name of the SAP RFC destination created in the SAP system to represent this daemon.

```
|—SAPSystemName—————|
```

Specifies the three character SAP system name the SAPconnect daemon (**sapconnd**) registers with and supports.

```
|—logicalDestinationName—————|
```

Specifies the name of the logical destination that is associated with the actual destination where you want the SAPconnect daemon to send fax requests.

```
|—SAPLogonuserid—————|
```

Specifies the userid defined for the SAPconnect daemon to log on with. This needs to be a userid of CPIC type with a S_A.SCON authorization profile assigned to it.

|—*SAPlogonclient*—|

Specifies the SAP client for the SAPconnect daemon to log onto.

|—*SAPlogonpassword*—|

Specifies the password for the SAPconnect daemon to log on with.

|—*SAPlogonlanguage*—|

Specifies the language for the SAPconnect daemon to log on with.

Examples

To start the **startsapconnectd** daemon to support SAP System TST after you have:

- Configured a TCP/IP registration type RFC destination in the SAP System named IPM_FAX.
- Created a CPIC user named myuser for the SAPconnect daemon.
- Identified client 030 as the client you want the **startsapconnectd** to log onto.
- Identified fax-1d as the InfoPrint Manager logical destination to send the fax jobs to an InfoPrint Manager Fax actual destination.
- Identified ipmpass as the *SAPlogonpassword*.
- Identified EN (for English) as the Language.

Then you would enter:

```
startsapconnectd IPM_FAX TST fax-1d myuser 030 ipmpass EN
```

stopsapconnectd utility: stops the SAPconnect Daemon

Syntax

stopsapconnectd utility

▶▶—*stopsapconnectd*—*SAPSystemName*—|

Description

Use the **stopsapconnectd** utility to stop the SAPconnect daemon (**sapconnd**) for an SAP system.

Arguments

The **stopsapconnectd** utility uses this argument:

|—*SAPSystemName*—|

Specifies the three character ID of the SAP system that the SAPconnect daemon is supporting. This is the specific SAPconnect daemon to stop.

Examples

To stop or shutdown the SAPconnect daemon for SAP System PRD, enter:

```
stopsapconnectd PRD
```

InfoPrint transform commands

This section describes these InfoPrint transform commands:

Transform Name	AIX	Windows
afp2pdf transform: transforms AFP data to PDF	AIX	Windows
“db2afp Command: transforms DBCS data to AFP” on page 268	AIX	Windows
“d2afp command: transforms ditroff data to AFP in InfoPrint Manager for AIX” on page 272	AIX	N/A
“gif2afp command: transforms GIF data to AFP” on page 275	AIX	Windows
“img2afp command: transforms image data to AFP” on page 298	AIX	Windows
“jpeg2afp command: transforms JPEG data to AFP” on page 305	AIX	Windows
“line2afp command: transforms traditional line data and ASCII data to AFP” on page 330	AIX	Windows
“pcl2afp command: transforms PCL data to AFP” on page 361	AIX	Windows
“ppml2afp transform: transforms PPML data to AFP” on page 410	AIX	Windows
“pdf2afp and ps2afp commands: transform PDF or PostScript data to AFP” on page 387	AIX	Windows
“sap2afp command: transforms SAP OTF or ABAP data to AFP” on page 417	AIX	Windows
“tiff2afp command: transforms TIFF data to AFP” on page 433	AIX	Windows
“xml2afp transform: transforms XML data to AFP” on page 458	AIX	Windows
“xml2pdf transform: transforms XML data to PDF” on page 466	AIX	Windows

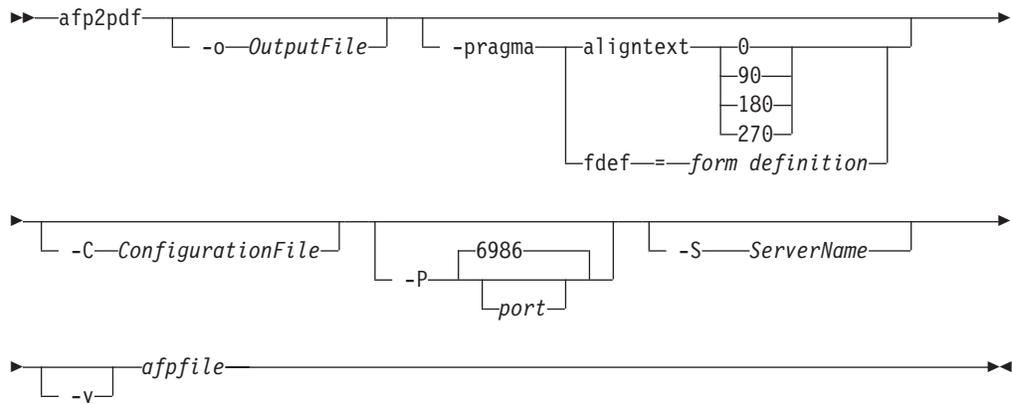
Note: InfoPrint invokes the appropriate transform automatically whenever you print a DBCS ASCII, DBCS EUC, ditroff, GIF, JPEG, line data, PCL, PDF, PostScript,

SAP, TIFF, or XML job on a PSF physical printer. You can pass options to these transforms using the **other-transform-options** document attribute on the InfoPrint **pdpr** command or the **-o** flag of the AIX print commands (**enq**, **lp**, and **qprt**) and the InfoPrint **lprafp** command. However, InfoPrint does not automatically invoke the **img2afp** or **xml2pdf** transforms.

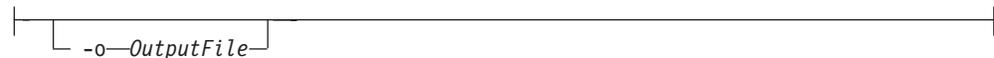
For more information, see “Attributes for documents and default documents” on page 686, “pdpr command: submits jobs” on page 90, “lprafp command: submits remote jobs in InfoPrint Manager for AIX” on page 24, or “The -o flag for AIX print commands and the InfoPrint Manager lprafp command” on page 140.

afp2pdf transform: transforms AFP data to PDF

Syntax

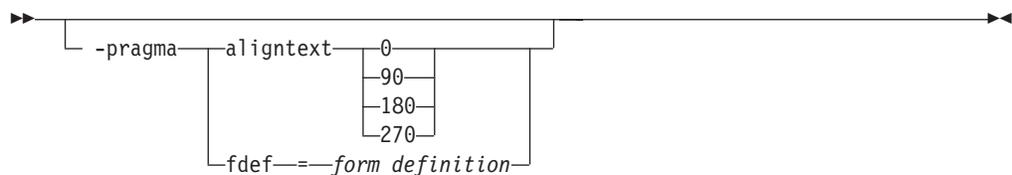


Parameters



Specifies the output path and file name of the output PDF file. By default, the output PDF file is placed in the same directory as the input file, and it has the same file name as the input file with the extension changed from **afp** to **pdf**. For example, when the PDF is generated from an AFP file named **afpdoc.afp**, an output file named **afpdoc.pdf** is created.

Note: If AFP is not used as the extension, a **pdf** extension is still added to the output PDF file.



Use **aligntext** to specify the rotation value to use when transforming the file. Valid values are **0**, **90**, **180**, or **270** (clockwise). Some AFP files might have already been

Specifies the name of the system on which the Transform Manager is running. The value is:

ServerName

Any valid workstation name on which the Transform Manager is installed and running. The name is defined in `/etc/hosts` file or by a name server, and can be a nickname like **molly**, or a dotted decimal address like **9.99.9.23**.

Note: If you specify the **-P** flag, you must also specify the **-S** flag. And conversely, if you specify the **-S** flag, you must also specify the **-P** flag.

► `-v` ◄

Specifies verbose information will be generated to **stderr**.

► `-afpfile` ◄

Specifies the AFP input file to be transformed. This parameter is required.

The **afp2pdf** transform configuration file

Parameters to control settings for the **afp2pdf** transform are specified in a configuration file. By default, the name of this file is **afp2pdf.cfg**. For AIX, the file is located in `/usr/lpp/psf/afp2pdf`. For Windows, the file is located in `install_path\afp2pdf`.

The syntax of the configuration file is exactly the same as the command line syntax with these additional rules:

1. Blank lines are ignored.
2. The information after a pound sign (#) is considered a comment and is ignored. The pound sign can occur anywhere on a line.
3. To include a pound sign in parameter data, it must be escaped; that is, it must be preceded by a backwards slash.
4. White space before and after parameter data is removed.
5. Parameter data on successive lines is concatenated with a single space between them.
6. Parameters can span lines as long as they follow rules 1 through 5.

Note: Options specified on the command line override options in the configuration file.

The parameters for the **afp2pdf** transform options are:

AFM_PATH=<path>

This parameter specifies the path location of the Adobe Font Metrics (AFM) files that the transform uses. An AFM stores font metric data for a Type 1 PostScript font. It contains the master design of a specific font, which defines the way each character of the font looks. If a path is not specified, the default path is:

For AIX

`/usr/lpp/psf/afp2pdf/font/AFM`

| **For Windows**

| *install_path\afp2pdf\font\AFM*

| There is no command line flag associated with the **AFM_PATH** parameter.

| **CNV_PATH=<path>**

| This parameter specifies the path location of the CNV files that the ICU
| library uses to convert text from one code page to Unicode and vice versa.
| If a path is not specified, the default path is:

| **For AIX**

| */usr/lpp/psf/afp2pdf/cnv*

| **For Windows**

| *install_path\afp2pdf\cnv*

| There is no command line flag associated with the **CNV_PATH** parameter.

| **DEFAULT_CPID=<>intValue**

| This parameter specifies a default Code Page Identifier (CPID) to be used
| when transforming AFP or SCS files.

| If a **DEFAULT_CPID** is not specified when transforming AFP files, a
| default value based on the cpdef file will be used.

| If a **DEFAULT_CPID** is not specified when transforming SCS files, CPID
| 500 will be used as the default.

| There is no command line flag associated with the **DEFAULT_CPID**
| parameter.

| **DEFAULT_FGID=<>intValue**

| This parameter specifies a default Font Global Identifier (FGID) to be used
| when transforming AFP or SCS files.

| If a **DEFAULT_FGID** is not specified when transforming AFP files, a
| default value based on the csdef file will be used.

| If a **DEFAULT_FGID** is not specified when transforming SCS files, FGID
| 11 (Courier) will be used as the default.

| There is no command line flag associated with the **DEFAULT_FGID**
| parameter.

| **DISABLE_MEMSREAM=(TRUE|FALSE)**

| When this parameter is set to **TRUE**, it specifies that during the
| transformation, the content of the PDF document will be written in
| temporary files created on disk, no matter the size of the AFP document.
| This parameter is useful if the output PDF document is too large to be kept
| in memory until the transformation is completed. By default, the PDF
| document content is kept in memory for an AFP document smaller than 10
| MB; otherwise, temporary files are used.

| There is no command line flag associated with the
| **DISABLE_MEMSTREAM** parameter.

| **ENABLE_AUTO_FONT_IMAGE=(TRUE|FALSE)**

| When this parameter is set to **TRUE**, it specifies that the output PDF
| document will contain an image for each character that was written with a
| raster font in the AFP document. By default, the raster fonts will be
| replaced with another font, and all characters will be written as text in the
| PDF document. However, some of the characters might look different from
| their raster form.

| There is no command line flag associated with the
| **ENABLE_AUTO_FONT_IMAGE** parameter.

| **FOCA_FONT_PATH**=<path>

| This parameter specifies the path where the AFP FOCA fonts are installed.
| The default path is:

| **For AIX**

| /usr/lpp/psf/fontlib

| **For Windows**

| *install_path*\afp2pdf\reslib

| There is no command line flag associated with the **FOCA_FONT_PATH**
| parameter.

| **FONT_PATH**=<path>

| This parameter specifies the path location of the font files that the
| transform uses when writing the PDF document. If a path is not specified,
| the default path is:

| **For AIX**

| /usr/lpp/psf/afp2pdf/font

| **For Windows**

| *install_path*\afp2pdf\font

| There is no command line flag associated with the **FONT_PATH**
| parameter.

| **MAX_OBJECTS**=<number>

| This parameter specifies the maximum objects that can be listed in the PDF
| cross-reference table (XREF). If the AFP file contains more objects than this,
| the additional ones are ignored. This setting is provided for use with the
| **MAX_PAGES** setting. For example, if **MAX_PAGES** is set to a number
| greater than 1000, the value assigned to **MAX_OBJECTS** might need to be
| set to a number greater than 50000.

| By default, **MAX_OBJECTS** and **MAX_PAGES** are commented out, which
| does not limit the number of objects or pages.

| There is no command line flag associated with the **MAX_OBJECTS**
| parameter.

| **MAX_PAGES**=<number>

| This parameter specifies the maximum pages to be converted. You can use
| this parameter to limit the number of pages generated by the transform.
| For example, if the number of pages in an AFP document is not known
| and you want to limit disk space usage, you might want to set a limit on
| the number of pages generated by the transform. Limiting the number of
| pages can also improve transform performance.

| By default, **MAX_PAGES** and **MAX_OBJECTS** are commented out, which
| does not limit the number of pages or objects.

| There is no command line flag associated with the **MAX_PAGES**
| parameter.

| **OVERLAYEXT**=<ListOfExtensstions>

| **PAGESEGEXT**=<ListOfExtensstions>

| **FORMDEFEXT**=<ListOfExtensstions>

| **JFIFext**=<ListOfExtensstions>

| **GIFEXT**=<ListOfExtensstions>

| **TIFFEXT**=<*ListOfExtensions*>

| These parameters specify the accepted extension for a resource type. The
| possible extension are separated by a comma (.). For each extension, a *
| (asterisk) will be replaced with the name of the searched resource.
| Therefore, specifying an * (asterisk) means no extension.

| When searching by name in the **RESOURCEDATAPATH**, the transform
| first tries the name with no extension. If it does not succeed, it tries with
| every extension from the list until the resource is found.

| By default, the extension list is an * (asterisk).

| There is no command line flag associated with these parameters.

| **PDF_FONT_MAP_FILE** = <*path*>

| This parameter specifies the path location of the fontmap.lst file that maps
| the Type 1 Fonts. When specified, it means that the user wants to embed
| Type 1 Fonts into the PDF document. If a path is not specified, the default
| path is:

| **For AIX**

| **/usr/lpp/psf/afp2pdf/font/fontmap.lst**

| **For Windows**

| **install_path\afp2pdf\font\fontmap.lst**

| There is no command line flag associated with the **PDF_FONT_MAP_FILE**
| parameter.

| **PFMPFB_DIRECTORY**=<*path*>

| This parameter specifies the path location of the Adobe Type 1 outline font
| files that the transform uses when embedding fonts inside of the PDF
| document. When simple font substitution is not acceptable in the PDF
| output, it is possible to embed a custom Type 1 font inside the PDF for
| better results. If a path is not specified, the default path is

| **For AIX**

| **/usr/lpp/psf/afp2pdf/font/type1**

| **For Windows**

| **install_path\afp2pdf\font\type1**

| **install_path/font/type1** or **install_path/font/AFM**

| **Note:** Placing Type 1 font files in this directory does not mean that they
| are automatically placed inside of the PDF file. For a font to be embedded,
| it must be mapped using the transform font definition files. See
| "Embedding Type 1 Fonts" on page 255 for more information.

| There is no command line flag associated with the **PFMPFB_DIRECTORY**
| parameter.

| **PRAGMA_FDEF**= <*filename*>

| This parameter specifies the file name of the form definition (FORMDEF)
| resource to be used when transforming the AFP file. If an inline form
| definition is associated with the AFP document, then both the **FDEF** from
| the configuration file and the command line are ignored. If **FDEF** is not
| included in the configuration file or specified on the command line, the
| F1A10110 default form definition is used.

| **PRAGMA_ALIGNTEXT**=<*angle*>

| This parameter specifies the rotation value to use when transforming the
| file. Valid values are **0**, **90**, **180**, or **270** (clockwise). Some AFP files might

have already been formatted with a rotated orientation. If this occurs, text is aligned with the vertical axis of the paper rather than the horizontal axis. To correct this, you must use this parameter to align the text as desired.

VERBOSE

This parameter specifies verbose information will be generated to **stderr**.

OUTPUTFILE=<path+filename>

This parameter specifies the *path* and *filename* of the output PDF file. By default, the output PDF file is placed in the same directory as the input file, and it has the same file name as the input file with the extension changed from **afp** to **pdf**. For example, when the PDF is generated from an AFP file named **afpdoc.afp**, an output file named **afpdoc.pdf** is created.

Note: If AFP is not used as the extension, a **pdf** extension is still added to the output PDF file.

RESOURCEDATAPATH =<path>

This parameter specifies the path location of the resource library. For all the external resources used by the AFP document (formdef, overlay, page segment, jfif, gif, IOCA image), the transform looks for them in this specified path. If a path is not specified, the default path is:

For AIX

`/usr/lpp/psf/afp2pdf/reslib;/usr/lpp/psf/reslib`

For Windows

`install_path\afp2pdf\reslib;install_path\reslib`

There is no command line flag associated with the **RESOURCEDATAPATH** parameter.

TT_FONT_PATH=<path>

This parameter specifies the location of the TrueType font or the TrueType Collection used. If a path is not specified, the default path is:

For AIX

`/usr/lpp/psf/afp2pdf/font/truetype`

For Windows

`install_path\afp2pdf\font\truetype`

Using the afp2pdf tracing and logging facility

Parameters to control settings for the tracing and logging facility of **afp2pdf** transform are specified in a configuration file. By default, the name of the file is **tracer.cfg**. The tracing facility can provide a large amount of information about how the transform performed the operations and also how the code was run.

The new tracing/logging facility uses a hierarchical model with nine levels of details:

OFF All traces are not logged.

SEVERE

Only severe errors are logged.

WARNING

The severe errors and warnings are logged.

CONFIG

All above and also the configuration information are logged.

INFO All above and general information messages are logged.

FINE All above and fine debugging messages are logged.

FINER

All above and finer debugging messages are logged.

FINEST

All above and finest debugging messages are logged.

ALL All messages are logged.

By default, all traces are off and no messages are logged in the trace file. To start the tracer/logger, follow these steps:

1. The **tracer.cfg** file is located in the same directory as the **afp2pdf.exe**, and it looks like this:

```
; BEGIN OF TRACER.CFG FILE
;
; This file is used for configuring the tracer.
;
; ALL KEYS AND VALUES FROM THIS FILE ARE CASE SENSITIVE!!!
;
; Key name:          TRACE-LEVEL
; Possible values:   OFF,SEVERE,WARNING,CONFIG,INFO,FINE,FINER,FINEST,ALL
; Default value:     OFF
; Description:       Set the level of details that are recorded by the tracer.
;                   The order of the values is also the level of visibility. For example:
;                   if the tracer is set to level CONFIG, all levels prior to this level are
;                   recorded (SEVERE, WARNING and CONFIG).
;                   OFF is to shutdown the trace completely
;                   ALL is the most detailed level of tracing
TRACE-LEVEL         = INFO

; Key name:          TRACE-PATH
; Possible values:   A valid location on the disk. If empty then the trace will use the
;                   current working directory.
; Default value:     =
; Description:       Specifies where the log files are going to be created.
TRACE-PATH          =

; Key name:          TRACE-FILENAME
; Possible values:   A filename that contains the %d or %u inside of it.
; Default value:     trace%d.log
; Description:       This is used as template for creating the trace filename. The %d or %u is
;                   used to specify the current number of the trace.
TRACE-FILENAME      = trace%d.log

; Key name:          MAX-BACKUP-TRACE
; Possible values:   A positive number
; Default value:     3
; Description:       This field specifies how many backups of the trace should be kept on the disk
;                   before start deleting them.
MAX-BACKUP-TRACE    = 3

; Key name:          TRACE-MAX-SIZE
; Possible values:   A positive number for the size of the trace file in bytes.
; Default value:     5242880 ~ 5Mb
; Description:       This field specifies how big the trace file should be before wrapping
;                   the file.
TRACE-MAX-SIZE      = 5242880

; Key name:          OUTPUT-TO-STDERR
; Possible values:   YES,NO
; Default value:     NO
; Description:       This field tells if the trace messages should be sent to standard error or
```

```

; not. This parameter can be combined with OUTPUT-TO-STDOUT and OUTPUT-TO-FILE
; for writing to multiple locations.
OUTPUT-TO-STDERR = NO

; Key name: OUTPUT-TO-STDOUT
; Possible values: YES,NO
; Default value: NO
; Description: This field tells if the trace messages should be sent to standard output or
; not
OUTPUT-TO-STDOUT = NO

; Key name: OUTPUT-TO-FILE
; Possible values: YES,NO
; Default value: YES
; Description: This field tells if the trace messages should be sent to the trace file or
; not
OUTPUT-TO-FILE = NO

; END OF TRACER.CFG FILE

```

Note: All keys and values in **tracer.cfg** are case-sensitive.

2. Copy the sample **tracer.cfg** file into the **var/afp2pdf** for AIX or the **install_path\afp2pdf** for Windows directory.
3. Configure the parameter **OUTPUT-TO-FILE** to **YES**. And specify the location where the trace files should be created by configuring the parameter **TRACE-PATH** to **/var/afp2pdf** for AIX or the **install_path\afp2pdf** for Windows.
4. On the next launch of the executable, the application will write the traces to the path configured in step 3.

Note: You will need to modify the **pdcapture** command to include the **tracer.cfg** and **trace*.log** files that are located in the **var/afp2pdf** for AIX or the **install_path\afp2pdf** for Windows directory.

Using AFP resources

The **afp2pdf** transform uses these AFP resources:

- Page segments
- Overlays
- Form definitions

The **afp2pdf** transform does not process AFP font files. If the program encounters resources of this type, they are ignored. To display text, the transform uses an existing set of predefined fonts. Font definition files that map the standard AFP fonts to Acrobat fonts for PDF are provided. If your AFP document uses AFP fonts that you have customized or created, you must map these fonts. For information about mapping AFP fonts, see "Mapping AFP fonts" on page 256.

The page segment, overlay, and form definition resources can be passed to the transform from these locations:

Inline resource group

The AFP resources needed by the AFP data file are combined into a logical resource library for the document. This resource group is contained in the AFP file along with the AFP document.

Resource directories

The **afp2pdf** transform provides a resource directory for external resources. On AIX, the directory is **/usr/lpp/psf/afp2pdf/reslib**, and on Windows, the directory is *install_path\afp2pdf\reslib*.

If InfoPrint Manager is installed, the **afp2pdf** transform also uses the InfoPrint Manager directory. If InfoPrint Manager for AIX is installed, the **afp2pdf** client uses the **/usr/lpp/psf/reslib** resource directory. If InfoPrint Manager for Windows is installed, the **afp2pdf** client uses the *install_path\reslib* resource directory.

For external resources, copy the resources:

For AIX:

/usr/lpp/psf/afp2pdf/reslib

For Windows:

install_path\afp2pdf\reslib

Note: The InfoPrint Manager resource directories are not used by the **afp2pdf** client when **afp2pdf** communicates with InfoPrint Transform Manager. These resource directories are used when **afp2pdf** runs natively on InfoPrint Manager for AIX or InfoPrint Manager for Windows.

Embedding Type 1 Fonts

When a custom AFP font is used in an AFP document, it might be necessary to generate an equivalent Type 1 outline font. You can configure the transform program to embed this Type 1 outline font in the output PDF file for proper display.

The Type 1 font must be in binary (PFB/PFM) format. If a font is in ASCII (AFM/PFA) format, you must convert it before it can be used with the transform. Type 1 fonts typically consist of a printer font binary (PFB) file and a printer font metrics (PFM) file. The PFB file contains the mathematical descriptions (in the PostScript language) for each character. The PFM file contains the font metrics needed for the characters.

For example, assume a Type 1 font is made up of the files **CustFont.pfb** and **CustFont.pfm**. The file extensions of **pfb** and **pfm** files must be lowercase for the transform to correctly identify these files. The font file name, **CustFont** must be the same for both the **pfb** and **pfm** files.

For the transform to use these files, you must specify:

- Where the files are located.
- When the files should be substituted for a specific AFP font.

File location: All Type 1 font files that can be used for embedding fonts into the PDF file must be placed into a single directory. This directory is then specified with the **PfmPfb_Directory** parameter in the transform options file. See The **afp2pdf** transform configuration file for more information.

Mapping the AFP font to the embedded Type 1 font:

Usually, the embedded Type 1 font name is specified in the **alias.fnt** font mapping configuration file. Under the **FONT** section, a font name and font metric file name are specified for the font:

```
[FONT]  
font=font_name,font_metic_name
```

Where:

FONT Defines the name by which this font is known and is referred to by the transform's other font configuration files. For example, **Custom1**.

font_name

Specifies the name of the font, such as **CustFont**. This name is case-sensitive and must match the file name of the PFB/PFM files.

font_metric-name

Specifies the file name for the font metric information. If it is set to **NULL**, it indicates that extra font metric information is not used.

In this example, if the AFP font is mapped to **Custom1**, the Type 1 font, **CustFont**, is embedded inside the output PDF file and the appropriate text uses this font for the display:

```
[FONT}  
Custom1=CustFont,NULL
```

See "Mapping AFP fonts" for more information about mapping fonts.

Mapping AFP fonts

The **afp2pdf** transform needs to map the AFP fonts your document was created with to fonts that can be used in PDF documents. For the **afp2pdf** transform to map the best matching fonts to display your AFP document, the transform needs to know certain characteristics about the fonts that were used to create your document. Mapping AFP fonts is done with the font definition files installed as part of the **afp2pdf** transform. These files are loaded into the **FONT** subdirectory under **/usr/lpp/psf/afp2pdf** for AIX and **install_path\afp2pdf** on Windows. You can edit them using any text editor. The shipped version of the font definition files maps the IBM Core Interchange (Latin only), compatibility, coordinated, and Data1 fonts for you. If your document uses an AFP font that is not listed in the font definition files, you need to add it. If you have generated modified font definition files for viewing AFP files for the AFP Workbench or for the AFP plug-in, some of the same files can be reused for the **afp2pdf** transform. The **icoded.fnt**, **coded.fnt**, **csdef.fnt**, **cpdef.fnt**, and **icudt381_ibm-CPGID_*.cnv** files can be copied and used for the transform. Do not try to reuse the **ALIAS.fnt** file.

When you need to map fonts:

If you are using fonts that are not defined for the **afp2pdf** transform, if you have modified the IBM AFP fonts, or if you have created your own AFP fonts, you need to define those fonts in the font definition files:

- If you created a new coded font or renamed one, you need to define the coded font in the Coded Font File (**icoded.fnt** or **coded.fnt**).
- If you created a new character set, you must define it in the Character Set Definition File (**csdef.fnt**).
- If you created a new code page, you must define it in the Code Page Definition File (**cpdef.fnt**).
- If you have created a new code page or modified a code page by moving characters, you need to create a new Code Page Map File (**icudt381_ibm-CPGID_*.cnv**).

Note: If you have only modified an existing IBM font component, such as by deleting code points in the IBM code page, you might not need to do any of the these definitions.

The afp2pdf transform files supplied for mapping fonts:

Table 7 lists the **afp2pdf** transform font support files and the subdirectories in which they are installed.

Table 7. afp2pdf font support files

File	File Name	Subdirectory	Description
Coded Font File	icoded.fnt coded.fnt	FONT	Specifies which AFP code page and AFP font character set make up the coded font.
Character Set Definition File	csdef.fnt	FONT	Defines AFP character set attributes, such as point size. It also maps the font character set to the font global identifier.
Code Page Definition File	cpdef.fnt	FONT	Maps each AFP code page to a Web browser character set and indicates which Code Page Map File to use for the afp2pdf transform.
Code Page Map File	icudt34l_ibm-CPGID_*.cnv	CNV	The .CNV files for ICU UCONV are used for character conversion.
Alias File	alias.fnt	FONT	Maps the font type families to an associated font metric file; also maps the font family type to be used during the transform.
Font Metric Information File	fontname.AFM	FONT then AFM	Contains the font metric information, which is the dimension of each of the characters.
Note:			
1. coded.fnt is optional and is meant to contain coded fonts you have created.			
2. <i>Character set</i> is similar to the AFP term code page.			

Coded Font File:

The IBM Coded Font File maps AFP coded fonts to their AFP character sets and AFP code pages. Use these two Coded Font Files with the **afp2pdf** transform:

icoded.fnt

This file contains definitions for approximately 2500 IBM-supplied coded fonts.

coded.fnt

You can create this optional file to define a list of any coded fonts you have created and place it in the FONT subdirectory.

If a **coded.fnt** file exists in the FONT subdirectory, it is searched first for the coded fonts used in an AFP file. Here is an example of the contents of the **coded.fnt** file:

```
X?A155N2 = C?A155N1, T1DCDCFS
X?AE10 = C?S0Ae10, T1S0AE10
X?GT10 = C?D0GT10, T1D0BASE
X?ST15 = C?D0ST15, T1D0BASE
X?A0770C - C?A07700, T1GI0361
X0T0550C = C0T05500, T1DCDCFS
```

Rule: A question mark (?) can only be used as the wildcard character for the second character in the coded font name and the character set name. With this rule, all the character rotations of the coded fonts can be handled with one entry or searching.

Note: A sequential search is performed for the coded font, and the first match is used, including the wildcard character.

After the coded font name, the character set name must be listed first, followed by the code page name.

The character set and code page must be separated by a comma.

Character Set Definition File:

The Character Set Definition File (**csdef.fnt**) specifies the character set attributes and font global identifier of the font. It is split into two sections: one for the character sets (CHARSET) and one for the global identifier (FGID).

CHARSET Section:

This example shows an example of the CHARSET section in the **csdef.fnt** file:

```
[CHARSET]
;charset = fgid, height, width, strikeover, underline
C?H200A0=2304,110,73,0,0
C?H200D0=2304,140,93,0,0
C?N200B0=2308,120,80,0,0
C?4200B0=416,120,144,0,0
C?D0GT15=230,80,96,0,0
C?A155A0=33207,110,73,0,0
C?A155A0=33227,110,73,0,0
C?T055D0=4407, 140,93,0,0
C?T17500=4555,100,67,0,0
C?T17560=4555,60,40,0,0
DEFAULT=2308,80,0
```

The CHARSET section lists each AFP font character set and its corresponding attributes. Table 8 on page 259 describes the attributes and values for CHARSET.

Table 8. CHARSET section

Attribute	Values	Shipped Default	Description
fgid	IBM-defined font global identifier (FGID) or your own FGID in one of these ranges: 3840 to 4096 65260 to 65534	2308	A unique value that identifies the type family, typeface, and sometimes the point size of the character set.
height	1 to 990	80	The vertical size of the character set (minimal baseline-to-baseline value) expressed in tenths of a point. For example, a 9-point font would have a height of 90.
width	0 to 99 (currently ignored)	0	The average horizontal size of the characters in 1440th of an inch. Currently, 0 is always used because Windows determines an appropriate font width based on the font height.
strikeover	1 = YES 2 = NO	0	A font whose characters all have a line, parallel to the character baseline, placed over the middle of the character.
underline	1 = YES 2 = NO	0	A font whose characters all have a line, parallel to the character baseline, placed under the character.

FGID Section:

Figure 1 shows an example of the FGID section in the **csdef.fnt** file.

```
[FGID]
;fgid = familyname, style, weight, italic
230=Gothic, MODERN,MED,0
416=Courier,MODERN,MED,0
2304=Helvetica,SWISS,MED,0
2308=TimesNewRoman,ROMAN,MED,0
```

Figure 1. FGID section in csdef.fnt file

The FGID section lists each font global identifier and its corresponding attributes. Table 9 describes the attributes and values for FGID.

Table 9. FGID section

Attribute	Values	Shipped Default	Description
familyname¹	Any Web browser font	Times New Roman	An outline font name or an AFP type family name

Table 9. FGID section (continued)

Attribute	Values	Shipped Default	Description
style	SWISS ² ROMAN ³ SCRIPT ⁴ MODERN ⁵ DISPLAY ⁶	ROMAN	
weight	LIGHT, MED, BOLD	MED	The degree of boldness of a typeface caused by different thicknesses of the strokes that form a graphic character.
italic	1 = YES 2 = NO	0	A font whose characters slant to the right.

Rules:

1. Attributes must be separated by a comma.
2. In the CHARSET section of the file, only **fgid** and **height** are required.
3. In the FGID section of the file, only **familyname** and **style** are required.
4. A question mark (?) can only be used as the wildcard character for the second character in the character set name. With this rule, all the character rotations of the coded fonts can be handled with one entry while searching.

Note: A sequential search is performed for the character set, and the first match is used, including the wildcard character.

5. The CHARSET section must come before the FGIC section in the file.
6. You can set a default character set. The default character set that is defined in the file must be the last entry in the CHARSET section.
7. If you add your own AFP font character set to the CHARSET section, you must assign it a font global identifier. If the new character set has the same familyname, style, weight, and italic attributes as an existing character set, you can use the same font global identifier; otherwise, you must add a unique font global identifier to the FGID section.

Code Page Definition File:

The Code Page Definition File maps the IBM AFP code page name to its code page global identifier (CPGID) and to a Web browser character set. The section header CODEPG is followed by a list of AFP code pages and their attributes. The first attribute in each line is the AFP code page global identifier that maps to a Code Page Map File (see "Code Page Map File" on page 261 for more information about mapping code pages). The second attribute is the Web browser character set that you decide is the best match for your AFP code page. The last line gives the

1. *familyname* is the same as *type family* in AFP fonts and *typeface name* in Windows.
 2. SWISS is a proportionally spaced, sans serif font.
 3. ROMAN is a proportionally spaced, serif font.
 4. SCRIPT is a fixed-pitch font designed to look like handwriting.
 5. MODERN is a fixed-pitch, sans serif or serif font.
 6. DISPLAY is a decorative font.

default attribute values to be used when a default is required. Figure 2 shows an example of the contents of the **cpdef.fnt** file.

```
[CODEPG]
;codepage = cpgid,wincp
T1DCDCFS=1003,ANSI
T1DEBASE=2058,ANSI
T1D0BASE=2063,ANSI
T1D0GP12=2085,ANSI
T1GI0395=2079,ANSI
T1GPI363=2066,SYMBOL
T1V10037=37,ANSI
T1V10273=273,ANSI
T1000290=290,ANSI
T1000310=310,ANSI
T1000423=423,ANSI
T1000905=905,ANSI
DEFAULT=361,ANSI
```

Figure 2. Example of *cpdef.fnt*

Table 10 describes the attributes and values for CODEPG.

Table 10. CODEPG section

Attribute	Values	Shipped Default	Description
cpgid	Pre-defined CPGID or your own defined CPGID in the range 65280 to 65534	361	Code page global identifier
wincp	ANSI or SYMBOL	ANSI	Windows character set

Rules:

1. Attributes must be separated by a comma.
2. Only the first attribute, **cpgid**, is required.
3. You can set a default code page. The default code page that is set in the file must be the last entry in the file.
4. If you create your own code page, you must assign it a unique code page identifier. Leading zeros are not valid. (You can use an IBM code page global identifier, but only if the character-to-hexadecimal code mapping is the same for your code page.)

Code Page Map File:

To add a new code page to the ICU UCONV, you need to obtain or create a source mapping data file, which has a file extension of **.ucm**, corresponding to the desired code page. A large archive of converter data is maintained by the International Components for Unicode (ICU) Web site. You can compile the source mapping data files (**.ucm** files) into binary converter files (**.cnv** files) by using the ICU tool **makeconv** and entering this command:

```
makeconv -p ICUDATA file.ucm
```

Where, the *file.ucm* represents the **.ucm** source file.

Note: The source code of **makeconv** can be found on the ICU Web site.

When the **afp2pdf** transform is installed, a CNV folder is created under the **afp2pdf** transform destination folder. The CNV folder is used as storage for the binary converter .cnv files. When the corresponding .cnv file is added to the CNV folder, the code page will be available to the transform.

Alias File:

The Alias File (**alias.fnt**) lists the font metric file name and the font family name aliases in the FONT section. Font family name aliases let you change all of the requested instances of a font family name (as defined in the Character Set Definition File) to another font family name.

Figure 3 shows how the **alias.fnt** file is used with the **afp2pdf** transform to change all requests for the Sonoran Serif font to requests for the Times New Roman font.

Note: Font family name remapping, especially to TrueType fonts, can cause misalignment of text characters because the display font is not the same as the font used to create the AFP document. Remapping of one font family name to a different font family name with very different characteristics (such as STYLE) might mean a matching font cannot be found. You receive an error message if either font substitute cannot be found.

```
[FONT]
; ***** Requested font = Type 1 font, TrueType font *****
Book=TNR,Times New Roman
CourierOverstrike=Cou,Courier New
SonoranSerif=TNR,Times New Roman
SonoranSansSerif=TNR,Arial
Text=Cou,Courier New
```

Figure 3. Example of how the alias.fnt file is used

Figure 4 shows how the **alias.fnt** file is used with the **afp2pdf** transform to change all requests for the SonoranSerif font to requests for the Times font (which is one of the base fonts available in the Adobe Acrobat Viewer).

```
[FONT]
; ***** Requested font = font name,Font metric/AFM filename (or 'NULL' for not used) *****
SonoranSerif=Times, NULL
```

Figure 4. Using the alias.fnt file with afp2pdf transform

Rules:

1. If multiple mappings are listed in the file for the same family name, only the first match is used.
2. The Alias File is processed sequentially and is not chained (for example, if "Century Schoolbook" is set equal to "Times", and "Times" is set equal to "Times New Roman", "Century Schoolbook" is not set to "Times New Roman").
3. Blanks in family names are treated as characters (for example, "New Century Schlbk" is not the same font as "NewCenturySchlbk").

Mapping your fonts to the afp2pdf transform:

After determining which font files you need to modify, use these steps to map your fonts:

1. Gather the information needed to define the fonts in the font definition files.
2. Make backup copies of any of these font definition files you plan to modify:
 - csdef.fnt
 - cpdef.fnt
 - icoded.fnt
 - alias.fnt
3. Substitute any non-matching characters in the Code Page Map File. See “Code Page Map File” on page 261 for information about Code Page Map Files.
4. Edit the **cpdef.fnt** file and add your code page name, code page identifier, and the best matching Web browser character set name for the fonts you are using.
5. If you have created a new character set, edit the **csdef.fnt** file and add your character set name in the CHARSET section. Specify the correct attributes for your font in the **csdef.fnt**. Add the appropriate information in the FIGID section of the file if you are naming a new font global identifier.
6. If you have created a coded font, create or edit the **coded.fnt** file and add your coded font.

Mapping fonts with non-Latin encodings:

When you use external fonts that contain glyphs that are not part of the Latin encoding, use this procedure to embed them in the PDF file.

1. Embed the font as described in “Embedding Type 1 Fonts” on page 255
2. When mapping the codepage in the cpdef.fnt file, specify the encoding to use:
 - ARABIC
 - GREEK
 - HEBREW
 - LAO
 - LATIN4
 - ORCA
 - ORCB
 - THAI
 - VIETNAMESE
3. Make sure a .cnv file is available for the specified code page.

Using TrueType fonts

The **afp2pdf** transform supports the use of TrueType fonts.

Embedding TrueType fonts:

With the **afp2pdf** PRPQ Version 1.5, you can convert an AFP document that contains TrueType fonts.

The TrueType fonts are embedded into the resulting PDF document.

By using embedded fonts, the size of the PDF file increases.

Mapping TrueType fonts:

If the AFP document you are converting to PDF contains TrueType fonts, you can create a smaller PDF document by adding the TrueType fonts to the **ttdef.fnt** file.

When you add the TrueType fonts to the `ttdef.fnt` file, you need to include details about the fonts, such as *familyname*, *style*, or *weight*.

Listing TrueType fonts in the `ttdef.fnt` file is especially useful when you have DBCS TrueType fonts that are over 25 megabytes each. The **afp2pdf** transform allows you to map the DBCS TrueType fonts to Type0 fonts. By adding the DBCS TrueType Font to the `ttdef.fnt` file and setting the *familyname* to `JpnSys1` or `JpnSys2`, the **afp2pdf** transform maps the DBCS TrueType font to either `KozGoPro-Medium` or `KozMinPro-Regular`.

The **afp2pdf** transform uses this search order for TrueType fonts:

1. The `ttdef.fnt` file is searched for the code page and character set pair.
2. The **afp2pdf** transform searches the TrueType font in the specified `TT_FONT_PATH`.
3. If the client is unable to locate the TrueType font, a message is issued, the **afp2pdf** transform uses the default font listed with the `DEFAULT =` option in the `ttdef.fnt` file.

Using the configuration file for TrueType fonts:

The **afp2pdf** transform uses a configuration file called `ttdef.fnt` to support TrueType fonts.

The `ttdef.fnt` file is similar to the `csdef.fnt` file. You use the `ttdef.fnt` file to map each TrueType font to a known Type 1 or Type 0 font.

The syntax of the `ttdef.fnt` file uses the same rules that are defined by the `csdef.fnt`, where comments are defined as `';`. The Full Font Name is extracted from the `x'02'` triplet (FQNTType is `x'DE'`) of the Map Data Resource (MDR). The Full Font Name is used to search the `ttdef.fnt` and the resource name when issuing the `open_input` handler command.

The encoding of the `ttdef.fnt` should be UTF-8 to make sure all font names can be rendered within the file. The *familyname* must convert to ANSI without any characters lost if aliasing for font name is used. For example:

```
ttdef.fnt
[TRUETYPE]
;full font name = familyname,style,weight,italic
Times New Roman=TimesNewRoman,ROMAN,MED,1
MS Gothic=JpnSys,SWISS,MED,0
MS Mincho=JpnSys2,ROMAN,MED,0
...
DEFAULT=TimesNewRoman,ROMAN,MED,1
```

The `ttdef.fnt` file is located in these directories:

On AIX:

```
/usr/lpp/psf/afp2pdf/font
```

On Windows:

```
install_path\afp2pdf\font
```

Using Outline fonts

The **afp2pdf** transform supports Outline Font Object Content Architecture (FOCA). The addition of FOCA support improves character placement for AFP raster fonts and provides 100% font fidelity for AFP outline fonts.

Outline fonts can be embedded as internal resources, or they can be referenced as external resources and mapped. In either case, the font may be defined through the coded font name or with a character set/code page pair.

The **afp2pdf** transform parses and extracts the outline font character set information it needs when outputting the text and saves the information in these files:

PFM file

Contains general information about the outline font obtained from the character set. This file can be external, saved on the hard drive, or kept in memory.

PFB file

Contains the data about the outline font. It must be extracted and kept on the hard drive or in memory.

For both cases (embedded or external Outline font) the PFM and PFB files are embedded within the PDF document, and the text is written in the PDF file using the embedded PFM and PFB information.

The **afp2pdf** transformer creates a temporary `cnv` file to be used by ICU for the conversion of text from Unicode to the specified codepage and for the conversion of text from the code page to Unicode.

Using non-Latin code pages with Outline fonts:

The **afp2pdf** transform supports non-Latin codepages for AFP Outline fonts.

These non-Latin code pages are supported:

- 259
- 290
- 420
- 423
- 424
- 833
- 836
- 838
- 870
- 875
- 880
- 892
- 893
- 904
- 1025
- 1026
- 1027
- 1097
- 1112
- 1122
- 1130
- 1132
- 1153
- 1154
- 1155
- 1156
- 1157

1158
1160
1164

When an AFP document contains text written in one of the supported non-Latin code pages, the **afp2pdf** transform uses a corresponding AFP Outline Font. Each code page has a corresponding AFP Outline font. The location of the AFP Outline fonts is specified in the configuration file using the `Foca_Font_Path` option. To display the text written with the non-Latin code-pages within the PDF, the **afp2pdf** transform extracts the PFB file from the AFP Outline Fonts and creates a PFM file. The resulting files are embedded within the PDF stream. When a non-Latin code page does not find the corresponding AFP Outline Font, the **afp2pdf** transform converts the text to a default code-page. This default code page is set in the `cpdef.fnt` file. The default code page is one of the base-14 Standard PDF fonts.

To accommodate the non-Latin code pages, these options have been added the `afp2pdf.cfg` file. The configuration file ("`afp2pdf.cfg`") has these new options:

For AIX

`Foca_Font_Path = /usr/lpp/psf/fontlib` specifies the path for the AFP Outline fonts.

For Windows

`Foca_Font_Path = \install_path\fontlib` specified the path for the AFP Outline fonts.

Note: If the configuration file does not contain the `Foca_Font_Path` entry, the **afp2pdf** transform searches within `/usr/lpp/psf/fontlib` for AIX and `\install_path\fontlib` for Windows.

Mapping outline fonts:

If the AFP document you are converting to PDF contains Outline fonts, you can create a smaller PDF document by adding the Outline fonts to the `afp2pdf.cfg` file.

You use the `Foca_Font_Path` option in the `afp2pdf.cfg` file to specify the path and name of the coded font. The name can be an actual coded font name or a character set/code page pair that identifies the font.

The **afp2pdf** transform uses this search order for Outline fonts:

1. The font directory specified with the `Foca_Font_Path` value in the `afp2pdf.cfg` is searched.
2. When an Outline font is not found in the `Foca_Font_Path` value in the `afp2pdf.cfg`, the **afp2pdf** transform uses a default font. The default font is a Type1 font, one of the PDF Base 14 Fonts, or one of the virtual DBCS (Type0_ fonts). You specify the default font in the `csdef.fnt` file.

Using raster fonts

The **afp2pdf** transform supports the use of raster fonts. Raster fonts contain a set of bitmaps that represent the character shapes for a certain font.

When you use raster fonts to create a PDF file, the **afp2pdf** transform uses the information received from the FOCA structure fields (character glyphs and widths) to create an Adobe PDF Type3 font. This Adobe PDF Type3 font contains an Encoding dictionary. The text written with this Type3 font is searchable.

Raster fonts can be embedded as internal resources, or they can be referenced as external resources and mapped. In either case, the font may be defined through the coded font name or with a character set/code page pair.

The **afp2pdf** transform parses and extracts the raster font character set information it needs when outputting the text and saves the information in these files:

PFM file

Contains general information about the raster font obtained from the character set. This file can be external, saved on the hard drive, or kept in memory.

PFB file

Contains the data about the raster font. It must be extracted and kept on the hard drive or in memory.

For both cases (embedded or external raster fonts), the PFM and PFB files are embedded within the PDF document, and the text is written in the PDF file using the embedded PFM and PFB information.

The **afp2pdf** transformer creates a temporary `cnv` file to be used by ICU for the conversion of text from Unicode to the specified codepage and for the conversion of text from the code page to Unicode.

Embedding raster fonts:

All raster fonts are transformed to AdobeType3 fonts and embedded within the PDF document.

Using Type3 fonts for raster fonts reduces the size of the PDF file and makes the PDF searchable.

Mapping raster fonts:

If the AFP document you are converting to PDF contains raster fonts, you can create a smaller PDF document by accessing the raster fonts outside of the AFP document.

The **afp2pdf** transform uses this search order for raster fonts:

1. The `icoded.fnt` file is searched for the code page and character set pair.
2. The font directory specified with the `Foca_Font_Path` value in the `afp2pdf.cfg` is searched.
3. When a raster font is not found in the `icoded.fnt` file or the `Foca_Font_Path` value in the `afp2pdf.cfg`, the **afp2pdf** transform uses a default font. The default font is a Type1 font, one of the PDF Base 14 Fonts, or one of the virtual DBCS (Type0_ fonts. You specify the default font in the `csdef.fnt` file.

Examples

1. Use the **-o** flag to specify the output file name:

```
afp2pdf -o sample.pdf example.afp
```

In this example, the **-o** flag indicates that the output will be generated in the current directory using the output file name `sample.pdf`.

2. To specify a custom form definition, use the **-pragma fdef** flag:

```
afp2pdf -pragma fdef="C:\myfdef\reslib\myformdef.fde" -o sample.pdf example.afp
```

In this example, the **-pragma fdef** flag is assigned the full path to a form definition file named **myformdef.fde**, which will be used to process the **example.afp** input file.

3. To specify the rotation value used to control text alignment with page orientation, use the **-pragma aligntext** flag:

```
afp2pdf -pragma aligntext=180 example.afp
```

This example aligns the text with a paper orientation that is rotated 180 degrees in an **example.pdf** output file.

4. Use the **-C** flag to specify the path and name of a configuration file:

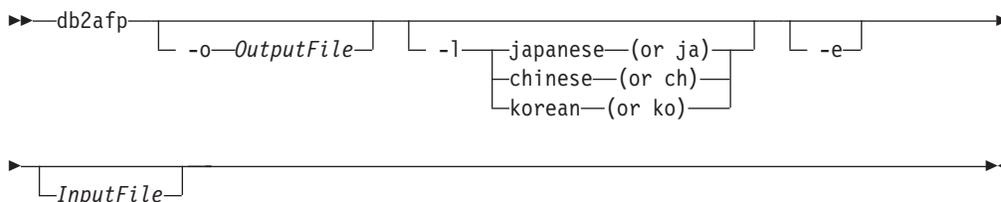
```
afp2pdf -C mycustom.cfg -o sample.pdf example.afp
```

The **mycustom.cfg** configuration file used to transform the **example.afp** input file to the **sample.pdf** output file.

db2afp Command: transforms DBCS data to AFP

Syntax

db2afp command



Description

Use the **db2afp** command to transform either a DBCS ASCII or an EUC file to an AFP data stream file so that you can print the file on an InfoPrint printer.

The **db2afp** command can transform input files that use these code pages:

- Japanese PC (code page number 943)
- Japanese EUC
- Traditional Chinese PC (code page number 950)
- Traditional Chinese EUC
- Korean EUC

You can run **db2afp** manually to transform a DBCS ASCII or EUC file to an AFP data stream file without printing it immediately.

The PSF DSS automatically runs the **db2afp** command whenever:

- InfoPrint identifies the format of a document in a print job as DBCS ASCII or EUC.
- You specify **document-format=dbcs-ascii** with the **-x** flag or in an attributes file on the **pdpr** command.

Note: For EUC format, specify **document-format=dbcs-ascii** and an EUC code page as the value of the **default-character-mapping** attribute.

- You submit a DBCS ASCII or EUC print job and request **-odatatype=dbcsascii** with one of the AIX print commands (**enq**, **lp**, and **qprt**) or with the **lprafp** command
- You select an attributes file that shows **dbcs-ascii** in the Type of Data in the Print File field, using the InfoPrint SMIT panels.

If you do not specify an input file, the **db2afp** command defaults to standard input. If no output file is specified, the **db2afp** command defaults to standard output.

For more information about the **db2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Automatic invocation

The PSF DSS automatically invokes the **db2afp** transform command whenever you submit a dbc-ascii file for printing. You can pass options to **db2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **db2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-l ja**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**.

Limitations

The **db2afp** command generates an AFP data stream file with double-byte character set (DBCS) font references. These DBCS fonts (for Japanese, Traditional Chinese, and Korean) are not part of InfoPrint and are sold separately.

Flags and values

You can specify these flags and values

- With the **db2afp** command
- With the **enq -o**, **lp -o**, **qprt -o**, or **lprafp** commands
- With the **pdpr** command, using the **other-transform-options** attribute or equivalent attributes on the command line or in an attributes file

Note: If you are migrating from PSF for AIX, see Appendix B, “Migrating PSF for AIX job script keywords to InfoPrint equivalents,” on page 1035 for a table of attributes equivalent to the job script keywords that you used to use to specify flags and values for transforms.

-o *OutputFile*

- Specifies the name of the AFP data stream output file generated by the transform. If you do not specify the **-o** flag, InfoPrint writes the result to standard output.

You cannot use **-o** *OutputFile* on the command line with the **enq**, **lp**, **qprt**, or **lprafp** commands. You can only use **-o** *OutputFile* with the **db2afp** command, or with the **other-transform-options** attribute on the **pdpr** command.

This flag is equivalent to the **transform-output-file-name** document attribute on the **pdpr** command.



- Specifies the language to be used for the transform. The values are:

ja or japanese

The input file is in Japanese.

ch or chinese

The input file is in Traditional Chinese for AIX (code page 950).

c2 The input file is in Traditional Chinese for Windows (code page 950).

ko or korean

The input file is in Korean.

Note: If you specify **-l ko**, you must also specify the **-e** flag. The **db2afp** command supports only Korean EUC, not Korean DBCS ASCII.

If you do not specify **-l** or **-e** on the command line, the **db2afp** command uses the value that has previously been set and exported with the **PSFDBLANG** environment variable. The **PSFDBLANG** environment variable can be set to one of these values:

j	Japanese (code page 943)
je	Japanese EUC
c	Traditional Chinese (code page 950)
t	Traditional Chinese (code page 950)
ce	Traditional Chinese EUC
ke	Korean EUC

With InfoPrint Manager for AIX, if you are unsure about the value to use with the **PSFDBLANG** environment variable, enter this command:

```
echo $LANG
```

The command displays one of these output values:

Ja_JP Japanese DBCS ASCII

ja_JP Japanese EUC

zh_TW
Traditional Chinese EUC

ko_KR
Korean EUC

With InfoPrint Manager for Windows, if you are unsure about the value to use with the **PSFDBLANG** environment variable, enter this command at a Windows command prompt:

```
chcp
```

The command displays this information:

```
Active code page: nnn
```

where *nnn* is the code page number 943 or 950.

Notes:

1. A Traditional Chinese DBCS ASCII locale does not exist.
If you specify either **-l** or **-e** on the command line, the **db2afp** command ignores the value set in the **PSFDBLANG** environment variable. If the **PSFDBLANG** value has not been set and you do not specify **-l** (and **-e** for EUC files), the transform will not work.
2. The value set in the **PSFDBLANG** environment variable is used when you submit a DBCS ASCII or EUC print job with the AIX print commands (**enq**, **lp**, or **qprt**), with the **pdpr** or **lprafp** command, or in the SMIT Submit an InfoPrint Job panel.
3. This flag and the **-e** flag, used together, are equivalent to the **default-character-mapping** document attribute on the **pdpr** command.

`-e`

- Tells the **db2afp** command to use the EUC code page when converting the input file to an AFP data stream. If the input file is in the Korean language, you should always use **-e**. If the input file is in Traditional Chinese or Japanese, you should use **-e** if your input data is in EUC format.

This flag and the **-l** flag, used together, are equivalent to the **default-character-mapping** document attribute on the **pdpr** command.

`InputFile`

Specifies the DBCS ASCII or EUC file that will be transformed to AFP. If you do not specify an input file, the **db2afp** command uses standard input.

Examples

- To transform the Japanese DBCS ASCII file `dbfile` into an AFP data stream file called `dbfile.afp`, enter:

```
db2afp -o dbfile.afp -l ja dbfile
```

The file is transformed, but not printed.

Note: You could also use this command to do a similar task, except that the output is sent to the printer:

```
pdpr -p servC-lp -x "default-character-mapping=ibm-943" dbfile
```

- To transform the Korean EUC file `korefile` to an AFP data stream file called `korefile.afp`, enter:

```
db2afp -o korefile.afp -l ko -e korefile
```

The file is transformed, but not printed.

Note: You could also use this command to transform the file, then print it:

```
pdpr -p servC-lp -x "other-transform-options='-e -l ko'" korefile
```

or

```
pdpr -p servC-lp -x "default-character-mapping=ibm-euckr" korefile
```

- With InfoPrint Manager for AIX, to transform a Traditional Chinese DBCS ASCII file named `memo.tc` into an AFP file and print it on an InfoPrint printer named `servC-lp`, enter:

```
pdpr -X chinese.X -p servC-lp memo.tc
```

In this example, the attributes file named `chinese.X` contains these settings:

```
document-format=dbcs-ascii
default-character-mapping=ibm-950
```

With InfoPrint Manager for AIX, to set the `db2afp` command to default to Korean EUC, enter these lines in the **.profile** file (Bourne shell or Korn shell) or the **.cshrc** file (C shell) in your home directory:

```
export PSFDBLANG=ke
```

The **db2afp** command now uses Korean EUC as long as the **PSFDBLANG** environment variable is set and exported, and **-l** or **-e** are not specified on the command line. So, to transform the Korean EUC file `korefile` into an AFP data stream file called `korefile.afp`, you now can enter:

```
db2afp -o korefile.afp korefile
```

Similarly, you could now use this command to transform the Korean EUC file, then print it:

```
enq -PservC-lp -o datatype=dbcsascii korefile
```

Files

For InfoPrint Manager for AIX, use these locations:

/usr/lpp/psf/bin/db2afp
Transform program

/usr/lpp/psf/db2afp/afpfont.rc
AFP font mapping file used by the **db2afp** command

/usr/lpp/psf/bin/libicudata24.so
Code page translation file (which contains mappings from the input code page to the output code page)

For InfoPrint Manager for Windows, use these locations:

install_path\bin\db2afp.exe
Transform program

install_path\bin\afpfont.rc
AFP font mapping file used by the **db2afp** command

install_path\bin\icudt24l.dll
Code page translation file (which contains mappings from the input code page to the output code page)

d2afp command: transforms ditroff data to AFP in InfoPrint Manager for AIX

Syntax

d2afp command

```
►► d2afp [ -o OutputFile ] InputFile ◀◀
```

Description

The **d2afp** command transforms a ditroff data stream file preformatted for an AFP device into an AFP data stream file so that you can print the file on an InfoPrint printer.

The process to transform troff files into AFP data stream files has two steps:

1. The troff file is first formatted by specifying the **troff -Tafp** command. This formatting step produces a device-independent troff (ditroff) file.

Notes:

- a. Use the **-Tafp** flag and value; otherwise, you cannot transform the ditroff file with the **d2afp** command. If you do not want to specify the **-Tafp** flag and value each time you use the **troff** command, you can set the **TYPESETTER** environment variable to **afp**. To do this, enter this command at the AIX command-line prompt or add this line to your **.profile** file (Bourne shell or Korn shell) or the **.cshrc** file (C shell) in your home directory:

```
export TYPESETTER=afp
```
 - b. Although you cannot use the **d2afp** command to transform ditroff files formatted with **troff -Tpsc** or **troff -Thplj**, you can print them. Use the **psc** or **hplj** command to convert the file to PostScript or PCL format. Then use **ps2afp** or **pcl2afp** to transform it.
2. The ditroff file is then transformed into an AFP data stream file with the **d2afp** command.

The PSF DSS automatically runs the **d2afp** command whenever:

- InfoPrint identifies the format of a document in a print job as ditroff.
- You specify **document-format=ditroff** with the **-x** flag or in an attributes file submitted with the **pdpr** command.
- You submit a ditroff print job and include the **-odatatype=ditroff** flag and keyword-value pair with one of the AIX print commands (**enq**, **lp**, and **qprt**) or with the **lprafp** command.
- You select an attributes file that has **ditroff** in the Type of Data in Print File field when using the InfoPrint SMIT panels to submit a print job.

Automatic invocation

The PSF DSS automatically invokes the **d2afp** transform command whenever you submit a ditroff file for printing. You can pass options to **d2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **d2afp** through InfoPrint Submit Express and InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-o myoutfile**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**.

Limitations

The **d2afp** command limits the number of fonts that a ditroff file can load, change, or map. These shows the maximum number of fonts for specific conditions:

ditroff Fonts	Condition
40	Loaded at one time
200	ditroff fonts mapped to AFP fonts
253	Point size or font changes on one page

If your troff file has graphics, you might use a different method to print ditroff files. If your PPDS or PCL printer does not support the PCL5 or PCL5C data streams, use this procedure to print troff files containing graphics:

1. Convert the troff file to ditroff format using the **troff -Thplj** command.
2. Convert the ditroff file to PCL format using the **hplj** command.
3. Submit the PCL file to print. InfoPrint automatically invokes the **pcl2afp** command to convert the PCL file to AFP format.

Flags and values

You can specify the *InputFile* and the **-o** *OutputFile* values in any order.

`[InputFile]`

- Specifies the name of the input file to transform. This input file must be a ditroff file; that is, a troff file formatted for an AFP printer device using the **troff -Tafp** command.

If you do not specify an input file, the command uses standard input. The value for the input file is any valid AIX file name.

`-o OutputFile`

Specifies the name of the AFP data stream output file generated by the transform. If you do not specify the **-o** flag, the output generated goes to standard output. The value for the output file is any valid AIX file name.

Examples

- To transform the ditroff file `myfile` into an AFP data stream file called `myfile.afp`, enter:

```
d2afp myfile -o myfile.afp
```
- To create an AFP data stream output file from the troff file `doc.trf` and print the output file using the InfoPrint logical printer `servC-lp`, enter:

```
troff -Tafp doc.trf | d2afp | pdpr -p servC-lp
```

In this example, the `troff` command searches the `/usr/lib/font/devafp` directory for the troff font and printer description files. The **d2afp** command also uses files in this directory.

In the preceding example, the **d2afp** transform runs on the local AIX system whether the printer, `servC-lp` is a local or remote printer.

Note: You could also use this command to perform the same function:

```
troff -Tafp doc.trf | pdpr -p servC-lp -odatatype=ditroff
```

In this case, if the printer, `servC-lp`, is local, the **d2afp** transform runs on the local AIX system; however, if the printer is remote, the **d2afp** transform runs on the remote AIX system.

- To print the ditroff file report on an InfoPrint printer named servD-1p, enter:
pdpr -X ditroff.X report

In this example, the attributes file named ditroff.X contains these settings:

```
document-format=ditroff
printer-name-requested=servD-1p
```

Files

/usr/lpp/psf/bin/d2afp

Transform program

/usr/lib/font/devafp/devafp.fontmap

AFP font mapping file used by the **d2afp** command to map troff fonts to AFP code pages and AFP character sets

/usr/lib/font/devafp/*.d2afp

Binary versions of the troff font and description files used by the **d2afp** command

/usr/lpp/psf/fontlib

AFP font resource directory, which includes AFP character sets and AFP code pages for ditroff

/usr/lib/font/devafp/README.d2afp

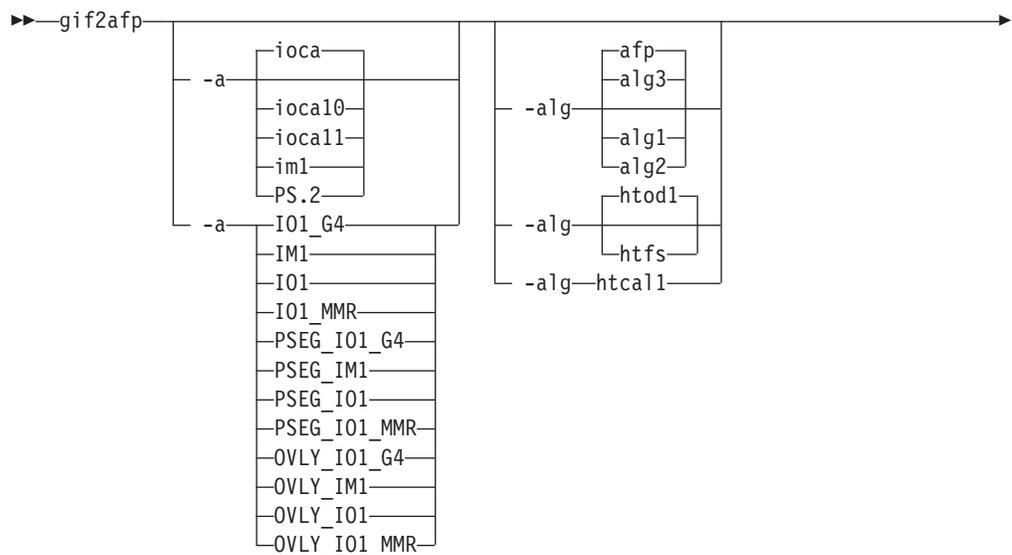
File that has useful information about AFP characters for troff and ditroff files

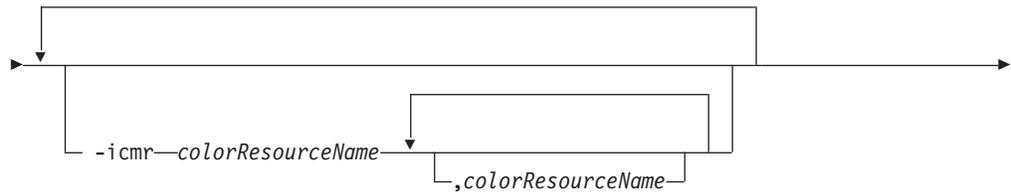
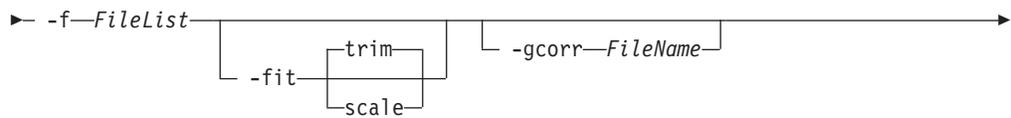
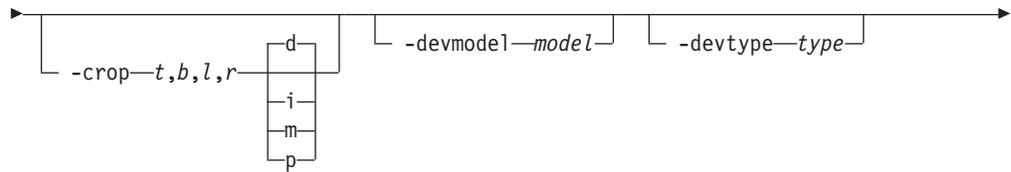
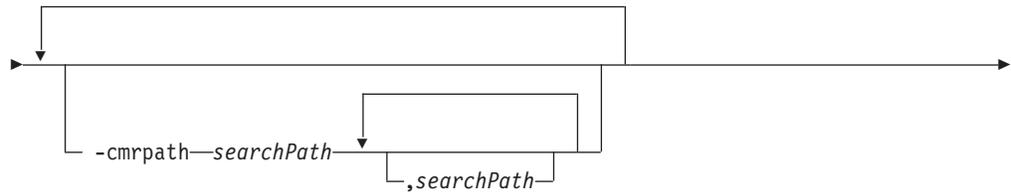
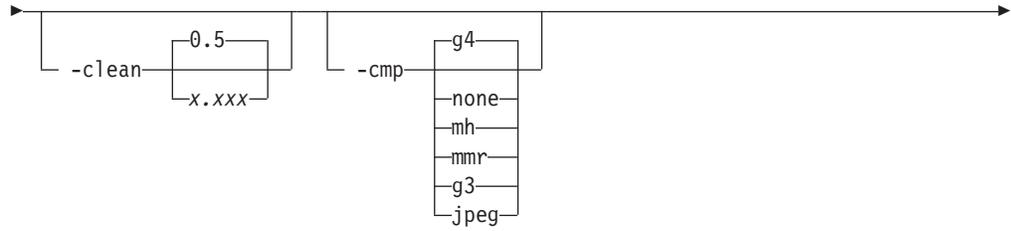
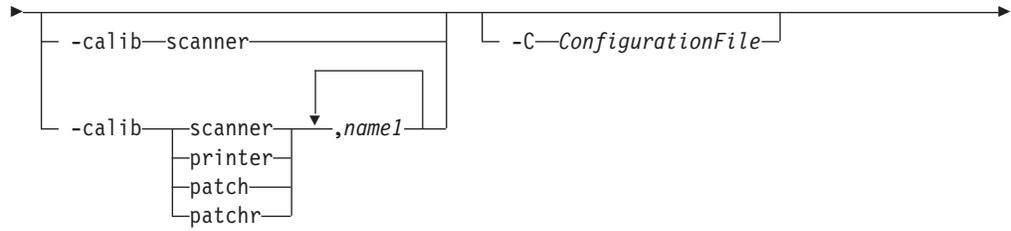
Other files associated with the **troff** command are described in *AIX for RS/6000 Commands Reference*.

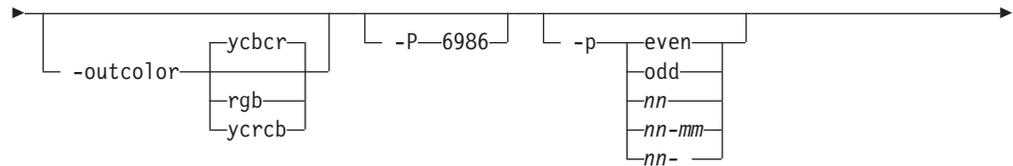
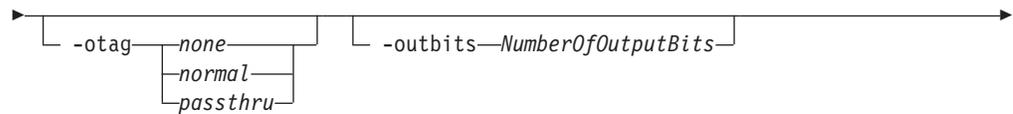
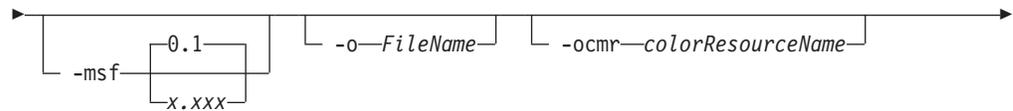
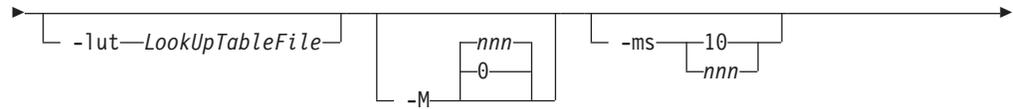
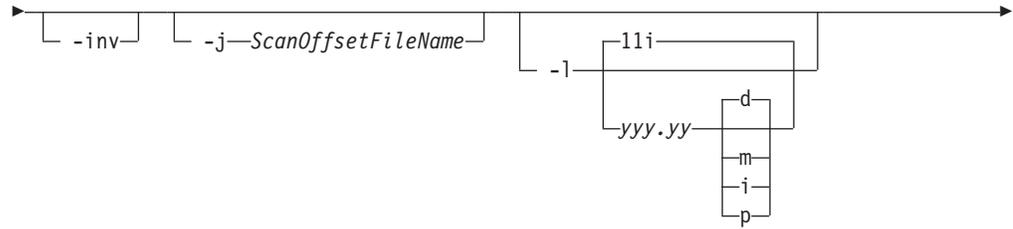
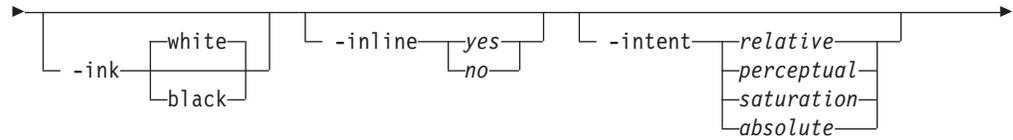
gif2afp command: transforms GIF data to AFP

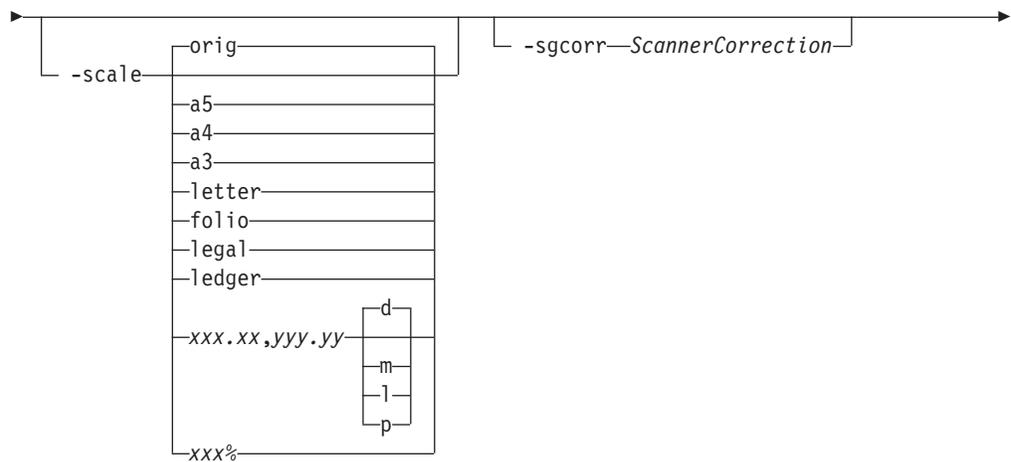
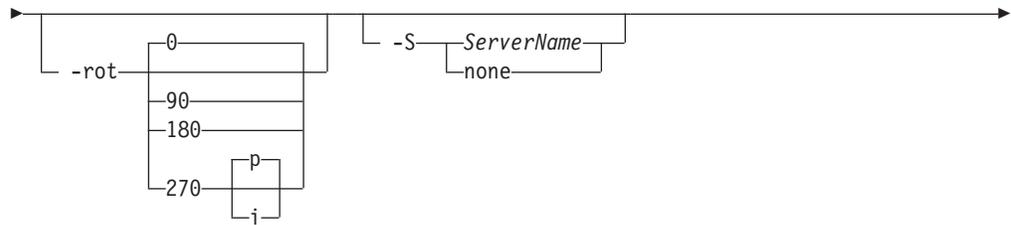
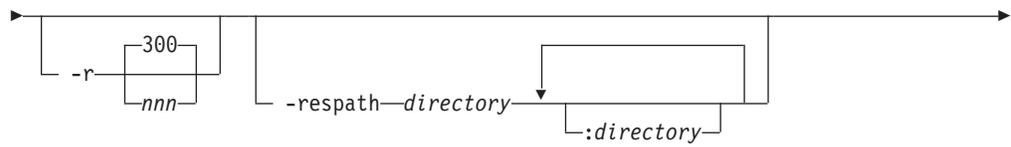
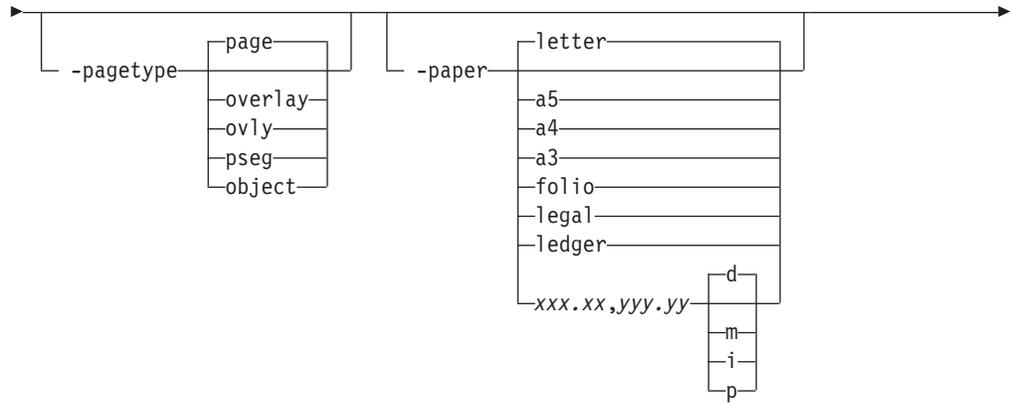
Syntax

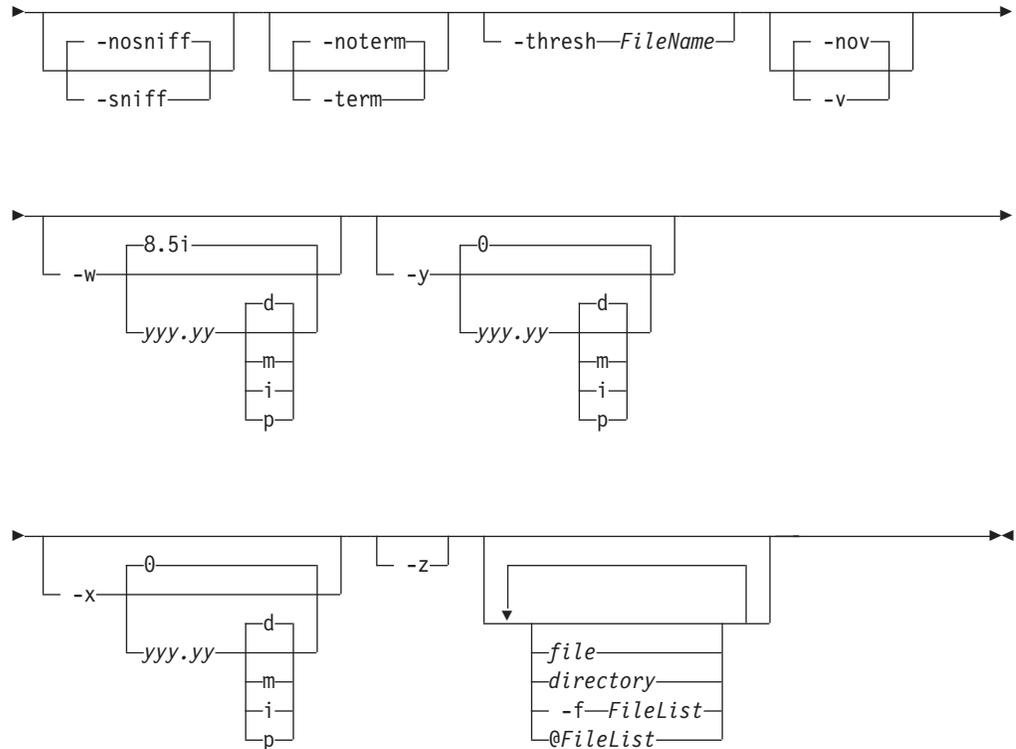
gif2afp command











Description

The **gif2afp** command transforms a GIF (Graphical Interchange Format) data stream into an AFP (MO:DCA-P) or PostScript Level 2 data stream file.

The transform can process GIF images, including bi-level, gray scale and color images. The output can be bi-level (IM1 or IOCA FS10), 4-bit or 8-bit grayscale, or 24-bit YCbCr color (IOCA FS11). The transform automatically uses halftoning to convert the grayscale and color images to bi-level.

For more information about the **gif2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Automatic invocation

The PSF DSS automatically invokes the **gif2afp** transform command whenever you submit a GIF file for printing. You can pass options to **gif2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **gif2afp** through InfoPrint Submit Express or InfoPrint Job Ticker with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-alg**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticker by clicking **Transform Settings** and entering them in the **Transform options**.

Input and output

gif2afp can process either standard input, or multiple files specified on the command line. If no input file is specified, **stdin** is assumed. Only a single GIF file should be submitted using **stdin**. If multiple GIF files are concatenated using standard input, all except the first one are ignored.

If an input file is specified on the command line, it can be either a GIF file, a directory, or a file list (**-f** and **@** prefixes). Multiple input file specifications are allowed. The transform processes each file in the order in which it was specified on the command line. If the **-z** option is specified, a list of file names to be processed is also submitted using standard input. The files on the list are processed as if the list were given using the **-f** option on the same place on the command line as **-z**.

If the file name points to a directory, **gif2afp** processes every file in that directory. The files are processed in the order they would be shown using the **ls -a** command. Directory search is not recursive, that is, subdirectories are not searched.

If the file name is preceded by the **-f** option or the at sign (**@**), **gif2afp** assumes that the file contains the list of GIF files to be processed. Each of the files in the list is processed in the order it was listed.

If a GIF file has the extension **.gif** or **.GIF**, this extension need not be given explicitly. **gif2afp** first tries to open the file as specified, and if unsuccessful, tries to append the extensions **.gif** and **.GIF** in turn.

For example, suppose that:

- The directory **tFiles** contains the files **file1.gif**, **file2.gif**, **file3.gif**, and **file4.gif** and nothing else.
- The file **flist** in the current directory contains the two file names **tFiles/file2.gif** and **tFiles/file3.gif**. The names listed in the file list can have their extensions omitted.
- The file **flist2** contains the file name **tFiles/file4**. Again, the names listed in the file list can have their extensions omitted.

To process files **file1.gif**, **file2.gif**, **file3.gif**, and **file4.gif**, any of these invocations of **gif2afp** would work:

```
gif2afp tFiles/file1.gif tFiles/file2.gif tFiles/file3.gif tFiles/file4.gif
gif2afp tFiles/file1 tFiles/file2 tFiles/file3 tFiles/file4
gif2afp tFiles/file*.gif
gif2afp tFiles
gif2afp tFiles/file1 -fflist tFiles/file4
gif2afp tFiles/file1 -f flist tFiles/file4
gif2afp tFiles/file1 -f flist -f flist2
gif2afp tFiles/file1 @flist @flist2
```

Note: With InfoPrint Manager for Windows, you can enter separators in path names as backward slashes or forward slashes.

The file list files allow the display text to be added for each file. A display text is any text starting with the pound character (**#**) and extending to the end of the line. The display text should follow the file name, and can extend over several lines, up to 2048 characters long. The initial **#** character on each line is discarded. If a display text is present for a file name, that text is displayed in the status and error messages instead of the file name. This is useful if the **gif2afp** is invoked using

temporary files whose names are meaningless to the user. Any display text before the first file name is treated as comment and discarded. Display text is allowed also if you use the **-z** option to submit the file list using standard input.

GIF files can contain multiple images. The **gif2afp** transform can process and output all the images in the file, subject to the values given in the **-p** option.

The output file name can be either specified explicitly using the **-o** option, or derived from the input file name. If multiple input files have been specified, the default output file is standard output. If a single input file is given and the output file is not specified explicitly, the transform strips the **.gif** or **.gif** extension from the input file name (if one is present), and appends the **.afp** extension for AFP output, or the **.ps** extension for PostScript output, to get the output file name.

To disable automatic output file name generation and force the default output stream to be the standard output in all cases, set the environment variable **GIF2AFP_o** to **-** or **stdout**, or alternatively, put the line **o=-** or **o=stdout** into the configuration file and invoke that configuration file using the **-C** option or the **GIF2AFP_C** environment variable.

For example, all these commands:

```
gif2afp myfile
gif2afp myfile.gif
gif2afp myfile -o myfile.afp
```

have **myfile.afp** as the output file. There is no requirement for the explicitly specified input and output files to have **.gif** and **.afp** extensions. To process GIF file **foo.bar** into an AFP file **foo.bar2**, invoke the transform using:

```
gif2afp foo.bar -o foo.bar2
```

The output data stream is MODCA-P IS/1, MODCAP-P IS/2, or PostScript Level 2. IS/1 images are bi-level and are encoded as IOCA Function Set 10 or IM1. IM1 images are uncompressed. IOCA FS10 output images can be either uncompressed, or compressed using one of the four available compression algorithms (see the **-cmp** option). The default is ITU-T T.6 Group 4 compression. IM1 images are always uncompressed. IS/2 images can be either bi-level, 4-bit or 8-bit grayscale, or 24 bit YCbCr color. Multibit images are encoded as IOCA Function Set 11. Be aware that the only product that supports IOCA FS11 images is the AFP Workbench, that is, grayscale and color AFP images are not currently supported by any printer.

PostScript Level 2 images can be uncompressed or ITU-T T.6 Group 4 bi-level, uncompressed 8-bit grayscale or uncompressed 24-bit RGB color. By default, the transform leaves scaling and halftoning to the printer (that is, color GIF images are output as 24-bit RGB color images).

Errors and error recovery

gif2afp divides errors into fatal and non-fatal. The fatal error categories are:

- Errors in the user-specified parameters, either in the environment variables, the configuration file, or the command line arguments. These errors include unrecognized options, incorrect values for parameters, or inability to open the configuration file or the output file.
- Out of memory errors. The requested memory is larger than the memory specified using the **-M** option or the dynamic memory allocation has failed.

- Disk space errors. The transform guards against trying to write to a full file system. See the **-ms** and **-msf** options for setting the minimum free disk space requirements. If the file system is full, the transform deletes the partial output file before terminating.
- Internal errors.

In the case of a fatal error, the last output page might not be complete.

Errors found in the GIF files are non-fatal and **gif2afp** tries to recover from them. These errors include not being able to open an input file, an input file not being a GIF file, or an input file containing features that cannot be processed. If the transform fails to open 15 or more input files, it assumes an error in the parameter list (for example, **-f** was used with a file that does not contain a file list) and terminates.

If an error is found in a file, the transform tries to recover with the next image in the file. If such recovery is not possible, **gif2afp** tries to recover with the next input file. In both cases, a warning message is issued. Errors and warnings are output to standard error.

For example, let a directory `tFiles` contain files `file1.gif`, `file1.txt`, `file2.gif` and `file3.gif`, where `file1.txt` is an ASCII file. Invoking the transform like this:

```
gif2afp tFiles
```

processes the bi-level images in all three GIF files correctly. A warning is issued that `file1.txt` is not a GIF file.

Non-fatal errors can be made fatal by using the option **-term**, or the corresponding environment variable or configuration file entry. If **-term** is set, the transform terminates in error if it encounters an error in the GIF data stream.

Data transformations

If the input image is gray scale or color, and the output image type is bi-level (IOCA FS10 or IM1), the transform internally scales the image to the desired size, then uses a halftoning algorithm (ordered dither, the default, or Floyd-Steinberg) to convert it to bi-level. In converting the image to bi-level, the characteristics of the output device such as dot shape and dot gain must be taken into consideration. The **-gcorr** option can be used to specify a different mapping of gray levels.

For very light or very dark images, the halftoning algorithms can be automatically recalibrated to preserve details that would be lost using the default calibration. See the **-alg** option for more information.

To maintain the image quality, scaling must be done before halftoning. The halftoning algorithm is very computation-intensive. Unless the images are small, **gif2afp** cannot process the color images fast enough to feed even a slow printer.

The size and position of the output image depend on several factors:

- The size specified to the transform
- The form map specified at print time
- The forms and options loaded in the printer

If the image is too large to fit on the page, it is trimmed to size by default. Use the **-fit scale** option to tell the printer to scale the image to the paper size. If the paper size is not specified explicitly using the **-paper** option, the paper size defaults to

US letter size (8.5 by 11 inches). If the image is larger than this, the paper dimensions are increased as necessary. If the paper size is specified explicitly, it is not increased if the image does not fit on paper. The options **-l** and **-w** have the same effect as **-paper**.

The size of the actual image (as opposed to the paper size) is controlled by the **-scale** option. You can either specify a value of **orig** for the **-scale** option or give an actual size. If you specify **orig**, the output image is the same size as the input image. If you specify **-scale** with an actual size, the output image is scaled to the desired size. You can also specify a percentage for enlargement or reduction.

Even if you specify **-scale orig**, the image can still have to be scaled if the input file specifies non-square pixels. By default, the transform leaves scaling to the printer. The exceptions are:

- Images that are being halftoned, which are always scaled in the transform,
- Images that have different resolutions in X and Y directions (non-square pixels)

Note: Because GIF files do not specify resolutions, the image is assumed to have the resolution of the output device.

You can use the **-alg** option to instruct the transform to do internal image scaling. Options **-alg**, **-clean**, and **-ink** select and configure various scaling algorithms.

GIF images are compressed using the LZW algorithm. Because LZW compression is not part of any current IOCA function set, **gif2afp** always reads and decompresses the image.

Parameters

gif2afp behavior is governed by many parameters. The parameters are set by this hierarchy (least significant first):

- Internal defaults
- Environment variables
- Configuration file
- Command-line arguments

Command line arguments

Remember these points about the command line arguments for the **gif2afp** transform:

- Options and input file names can appear on the command line in any order.
- When you run **gif2afp** as a standalone transform, the blank between option and value is optional (for example, both **-inkblack** and **-ink black** are valid).
- When you use the **-o** flag of the **enq**, **lp**, **qprt**, or **lprafp** commands to pass options to **gif2afp**, no blank is permitted between option and value is optional (for example, **-o-inkblack** is valid, but **-o -ink black** is not).
- When you use the **other-transform-options** attribute on the **pdpr** command to pass options to **gif2afp**, any string containing a blank must be surrounded by single quotes (for example, both **other-transform-options=-inkblack** and **other-transform-options='-ink black'** are valid).
- All values except file names are case-insensitive.
- If an option is specified multiple times, the last specification remains in force.
- If multiple configuration file names are given, they are processed in order.

Configuration file

The configuration file has entries of the form *option=value*, where each pair must be in on a separate line. Options and other syntax are the same as for the command line arguments and the option names are the same. Input files and configuration files cannot be specified in the configuration file (that is, nested configuration files are not supported). In the case of options without values (for example, **-inv**), the equals sign must be present.

Some command line options, for example, **-calib**, cannot be used in the configuration file or as environment variables. Options available only on the command line are noted as such in their descriptions.

If you do not specify a configuration file on the command line with the **-C** option, the transform checks for the existence of the default configuration file, **/usr/lpp/psf/gif2afp/gif2afp.cfg** with InfoPrint Manager for AIX and **install_path\gif2afp\gif2afp.cfg** with InfoPrint Manager for Windows. If this file exists, the transform uses it as the configuration file.

Here is an example of a valid configuration file:

```
scale = letter
r= 300
o = -
inv=
alg=afp
```

Note: The spaces around the equals sign (=) are optional. In this example, the option-value pair **o = -** means that the default output file is the standard output. Output file name computation has been disabled.

Environment variables

Environment variables have the form **GIF2AFP_option**, where *option* is the same as on the command line and the configuration file.

Some command line options, for example, **-calib**, cannot be used in the configuration file or as environment variables. Options available only on the command line are noted as such in their descriptions.

For example, to achieve the same effect as the configuration file in the last example, these statements have to be executed in the calling shell:

```
export GIF2AFP_scale=letter
export GIF2AFP_r=300
export GIF2AFP_o=-
export GIF2AFP_inv=" "
export GIF2AFP_alg=afp
```

There must be some value set for each desired option. For options that do not take a value, specify a blank surrounded by double quotes, for example:

```
export GIF2AFP_inv=" "    correct
export GIF2AFP_inv=      has no effect
```

Resource search path

For resource files, such as scan offset files and gray scale correction files, the transform searches the current directory by default. You can use the **-respath**

option to specify a list of directories to be searched for such files. This resource path does not apply to the configuration file.

Limitations

- Timing data from GIF animation sequences is ignored.
- Animation sequences are processed as unrelated images.

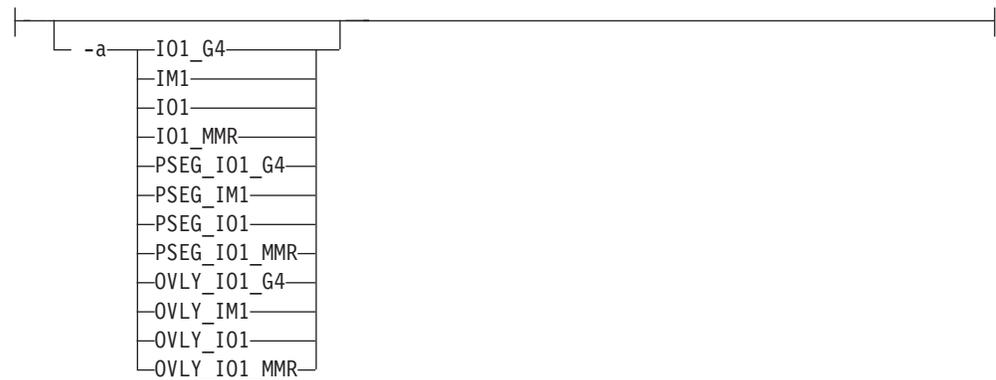
Acknowledgments

This software is partially based on the Independent JPEG Group's JPEG compression and decompression code.

Options and values

—@FileList—

Specifies a name of a file that contains a list of files to be processed by the transform. If the @ option is present, the output file defaults to standard output, even if the list of files contains only a single entry. Multiple @ options are allowed. Also see the -f and -z options. The @ is not preceded by the dash, and is implemented to maintain compatibility with the **ps2afp** transform.



- Choice of the output image type. The first syntax selects between the IOCA FS 10 (**ioca**, **ioca10**), IOCA FS11 (**ioca11**), IM1, and PostScript Level 2 (**PS.2**) output. IOCA FS10 and IM1 yield bi-level images, while IOCA FS11 results in 4-bit or 8-bit gray or 24-bit color output (see option **-outbits**). Currently, the only product that supports IOCA FS11 is the AFP Workbench. The output compression algorithm is set using the option **-cmp**. To set the page type (page, overlay, page segment or object), use the **-pagetype** option.

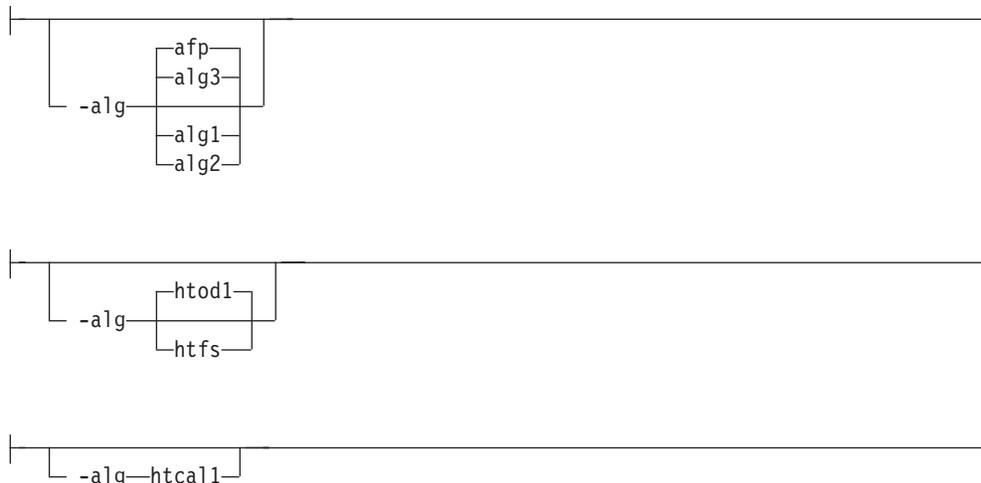
The second syntax is to maintain compatibility with the **ps2afp** transform, and sets the image type (**IO1** for IOCA FS10 or **IM1** for IM1 output), compression (**G4** for Group 4 or **MMR** for Group 3), and page type (**PSEG** for page segment or **OVLY** for overlay). If **PSEG** or **OVLY** is not specified, the output is a

printable page. If no compression algorithm is specified, the output is not compressed. The second syntax cannot be used for IOCA FS11 output.

Some older printers do not support IOCA images. In such cases, the IM1 output type should be chosen. IM1 images are uncompressed and thus use more space. The processing might also take longer since the IM1 image cannot be scaled by the printer and so internal scaling algorithms must be used. See option **-alg**.

The default is **ioca** for IOCA FS10 output compressed using the Group 4 algorithm.

This option is similar to the **image-out-format** document attribute on the **pdpr** command.



- Choice of the scaling and halftoning algorithms. You can specify multiple choices, separated by commas, for one **-alg** option. The effect is the same as specifying multiple **-alg** options. For example, **-alg htfs,htcal** is equivalent to **-alg htfs -alg htcal**.

The scaling algorithms are:

- If **afp** is chosen, the scaling is done using the default algorithm in the printer. This makes the transform much faster. If the image must be reduced, however, this algorithm might drop some information from the image, such as thin lines.
- **alg1** activates the internal scaling algorithm to scale the image explicitly to the specified size. This algorithm is guaranteed not to discard any ink. “White space” in the image, however, might be lost (that is, features close to one another might merge). This algorithm makes the transform run longer, and might occasionally make for a “dirty” image, since the occasional “noise pixels” in the scanned images tend to be amplified.
- **alg2** activates the more flexible version of **alg1**. If this algorithm is selected, option **-clean** can be used to specify the amount of ink “cleanup” to be performed. Option **-clean 0.0** makes the algorithm **alg2** perform like **alg1** (albeit more slowly). Increasing the value specified in **-clean** discards more and more ink, until **-clean 1.0** results in a blank page.
- **alg3** activates a scaling algorithm that works by deleting or duplicating rows and columns in the image. This is a fast general-purpose algorithm.

For bi-level images, the default is **afp** if the output image type is IOCA and **alg3** if the output image type is IM1. For color images with bi-level output, the

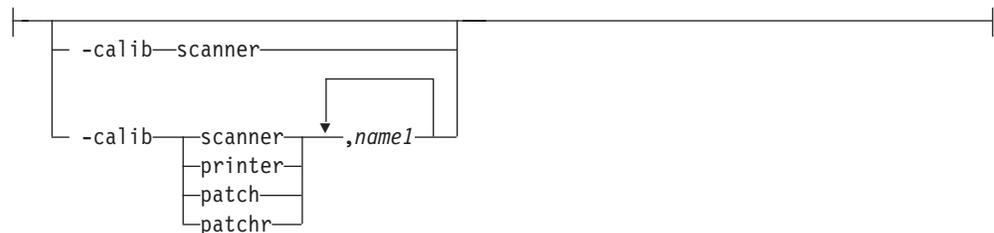
scaling is always done before the halftoning algorithm. If a grayscale or color output is chosen (**-a ioca11**), this option is ignored and the algorithm is set to **afp**.

The halftoning algorithms are:

- **htod1** uses an ordered dither with a screen derived from the value of the **-thresh** option. The default is an 85 line per inch screen.
- **htfs** uses the Floyd-Steinberg algorithm.
- **htcal1** recalibrates the halftoning algorithm for each image. **htcal1** forces the transform to read the whole image into memory and requires an additional pass through the image. It should be used only for very light or very dark images.

The default is **htod1**. Each halftoning algorithm uses a different internal default calibration curve. If the automatic calibration is turned on, a still different set of calibration curves are used.

See options **-clean**, **-gcorr**, **-ink**, **-paper**, **-scale**, **-thresh**, **-l**, **-w**, **-x**, and **-y**.



- Transform calibration for the scanner or printer. If **scanner** is specified, **-sgcorr** must be present. If **printer** is specified, **-sgcorr** might or might not be present. If **patch** or **patchr** is specified, **-sgcorr** (if present) is ignored. Detailed explanation of the calibration process is beyond the scope of this entry.

You cannot specify **-calib** in the configuration file or as an environment variable.



- The name of a configuration file containing option-value pairs. If multiple **-C** options are given on the command line, they are processed in order. Specifying the configuration file on the command line overrides any specification done using the **GIF2AFP_C** environment variable.

The default configuration file is **/usr/lpp/psf/gif2afp/gif2afp.cfg** with InfoPrint Manager for AIX and **install_path\gif2afp\gif2afp.cfg** with InfoPrint Manager for Windows.



- The internal scaling algorithm **alg2** allows for variable thresholding. The scaled pixel is declared painted if the fraction of its area greater than the threshold is painted in the original image. The value **x.xxx** is a real number between zero and 1 inclusive and gives this threshold.

If the option **-clean 0.0** is issued, **alg2** behaves like **alg1** and turns on a pixel as long as any part of the pixel has been painted in the original image. **-clean 1.0** results in a blank image because the output pixels are never painted.

Setting **-clean 0.95** and **0.9999999** turns on the pixels that had essentially all the area painted in the original picture. Depending on the data, most of the image will probably be preserved. Increasing **-clean** by a small amount to **1.0** erases the image. If the scaling algorithm is not **alg2**, this option is ignored. The default is **-clean 0.5**.



- Choice of the output image compression algorithm:

none Uncompressed output

mh ITU-T T.4 G3 Modified Huffman

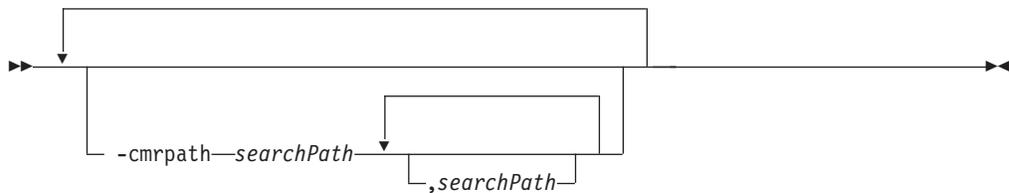
mmr IBM Modified Modified Read

g3 ITU-T T.4 G3 Modified Read

g4 ITU-T T.6 G4

jpeg JPEG non-differential Huffman coding with baseline DCT. The output image data should be compressed to reduce the file sizes and increase the printing speed.

The default compression is ITU-T T.6 Group 4 for bi-level images and no compression for gray scale or color images. Some printers might not support Group 4 compression algorithm and require use of the **-cmp** option to select a different one. The JPEG algorithm can compress only 8-bit gray scale and 24-bit color images. 4-bit gray scale images cannot be compressed.



- Specifies the search order for locating color resources. This search order is a series of directory paths that color resources are located in. If you specify two or more **-cmrpath** flags, InfoPrint will concatenate these search orders.



- Image cropping. *t,b,l,r* specify how much should be cropped from the image top, bottom, left edge, and right edge. The numbers are floating point and can be either positive or negative. Negative numbers indicate that a blank space should be inserted. The units are inches, millimeters, points, and dots (pels). The default

is dots. The cropping is specified in the context of the output page, so that “top” means the top of the output page and so on, regardless of the **-rot** option. To crop, the transform enlarges the image by the amount to be cropped, then crops the specified amount by manipulating the actual bitmap. The resulting image has the size as specified by the explicit (or implicit) **-scale** option. See also option **-j**.

If **-fit trim** is specified, the right and the bottom edge of the image are not cropped. Instead, the image grows as necessary. Because **-fit trim** causes the output data stream to contain the “position and trim” specification, the printer discards any extra image.



- Specify the device model of the actual device.



- Specify the device type of the actual device.

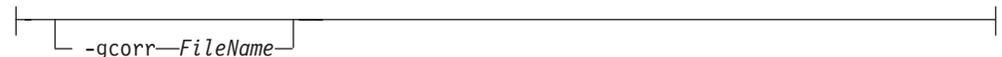


Specifies the name of a file that contains a list of files to be processed by the transform. If the **-f** option is present, the output file defaults to standard output, even if the list of files contains only a single entry. Multiple **-f** options are allowed. See also options **@** and **-z**.



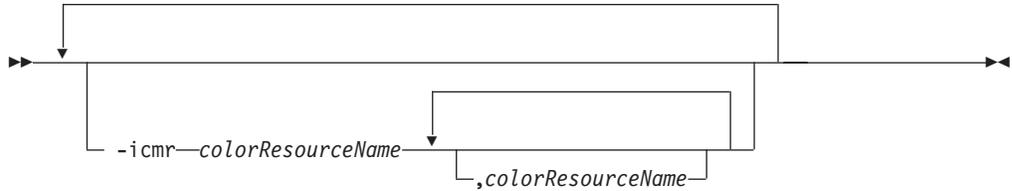
- Determines whether the printer behavior will be position-and-trim or scale-to-fit if the image is too large to fit on the paper. The default is **trim**.

This option is equivalent to the **image-fit** document attribute on the **pdpr** command.



- Specifies a file with gray scale mapping table for halftoning of the gray scale and color images to bi-level for output. The mapping table must be provided to compensate for the printing characteristics of the particular output device and paper type, such as dot gain. This file must contain either:
 - 256 real numbers, one for each level of gray in the 8-bit gray scale image
 - The PostScript **settransfer** operator

The algorithm converts every image to 8-bit gray scale before applying the halftoning algorithm. The default internal mapping table has been optimized for the 600-pel InfoPrint 4000 laser printer. You shouldn't change this unless you know what you are doing. See also options **-alg** and **-thresh**. PostScript code submitted using the **-thresh** option can have the same effect as **-gcorr**.



- Specifies one or more input or audit color resources. The color resources can be either ICC Profiles or Color Management Resources (CMRs). If you specify two or more **-icmr** flags on a transform command line, InfoPrint will concatenate the resources together. If two or more resources that are specified by the **-icmr** flags are for the same color space, InfoPrint will use the last specified resource.



- This option is used only with scaling algorithm **alg1** or **alg2**. The GIF images can be either black on white or white on black. The internal scaling algorithm must know which, because “ink” is preserved at the expense of “non-ink”. The default value, “black”, indicates that the image is black on white.

If you use the option **-inv** to print the reversed image, the inversion is done as the data is read by the transform, before any processing is done. The black or white must thus be specified in the terms of the printed image, not in the terms of the input GIF image.



- Specifies whether the output Color Management Resource (CMR) will be placed inline with the data stream. If you specify two or more **-inline** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies the rendering intent. You can also use the **-pragma** option to specify the rendering intent by setting:
-pragma colorRendering=relative

If you specify two or more **-intent** flags on a transform command line, InfoPrint will use the last specified value.



Reverses the image. Areas that are black in the original image become white and vice versa. The reversed image can be either black on white or white on black, depending on the original image.

`-j—ScanOffsetFileName`

- Sometimes input images must be shifted to get the desired positioning on the page. The scan offset file contains the directions for shifting. The file has the format of

```
[attribute]
values
:
values
[attribute]
values
:
values
```

Currently, the recognized attributes are **[Units]** (values **millimeters**, **mm**, **inches**, **in**, **points**, **dots**, **pels**) **[Page_Offset_Type]** (values **crop** or **grow**) and **[Page_Offsets]**. The values for page offsets are in the format *FileName,Horiz,Vvert*. Each entry refers to a file. The file names must be specified (or at least the leading comma must), but are currently ignored and the offset factors are applied to each file in turn. The same factors are applied to each image in the file. The *horiz* and *vert* values are the amount that the image is to be shifted, in the horizontal and vertical direction. The positive directions are down and right (that is, the origin is in the left upper corner of the page). The default units are millimeters. Like the values for the **-crop** option, the shifts are specified in the output space context.

Extra spaces and blank lines are allowed. Unrecognized attributes and their values are ignored. See the sample file **shift.sample**.

If the image is moved left or up, part of the bitmap is removed. If the image is moved down or right, removal is governed by the value of the **[Page_Offset_Type]** attribute. If **crop** is chosen, the transform removes the requisite amount from the right and bottom edges of the bitmap. If **grow** is chosen, the transform does not remove any space. The bitmap grows and the trimming, if any, is left to the printer. If the **-fit trim** option (the default) is specified, **[Page_Offset_Type]** defaults to **grow**. For **-fit scale**, **[Page_Offset_Type]** defaults to **crop**.

`-l` `11i`
`yyy.yy` `d`
`m`
`i`
`p`

Specifies the paper length. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. If the unit is dots, decimals (if any) are ignored. The default paper length is 11 inches. See options **-w** to set the paper width or **-paper** to set both dimensions at the same time.

`-lut—LookUpTableFile`

Specifies the *FileName* for the color conversion lookup table file. The *FileName* you specify can be a fully qualified filename.

Fast and accurate conversion between color spaces can be implemented as a multidimensional lookup with an interpolation algorithm for missing nodes. The file specified with the **-lut** option must contain a valid lookup table for the conversion between the input and output color spaces. The lookup tables currently come in either ASCII (.lut) or binary formats (.lutbin).



Limits the amount of memory available to **gif2afp**. *nnn* is the maximum amount of memory in kilobytes. A value of **0** means there is no memory limit. *nnn* can be set from **0** to the maximum value that AIX allows. The default is **0**.



Requires that at least *nnn* kilobytes of disk space be available on the file system that contains the output file. This limit is enforced every time data is written to the output file. If the output is standard output, this option is ignored. The default is **10**. See option **-msf**.



The number *x.xxx* is a real number between 0 and 1. It denotes the minimum space that must be left unused on the file system containing the output file. The space is given as a fraction of the total space in the file system. This limit is enforced every time data is written to the output file. If the output is standard output, this option is ignored. The default is **0.1**. See option **-ms**.

-nosniff

See **-sniff**.

-noterm

See **-term**.

-nov See **-v**.



Optional output file name. Specify `-` for standard output.



- Specifies an output color resource. The color resource can be either an ICC Profile or a Color Management Resource (CMR). If you specify two or more **-ocmr** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies how the output AFP will be tagged with color information. The allowed values are:

none There will be no tagging in the output AFP.

normal

InfoPrint will use the specified **-ocmr** value to tag the output AFP as an input (audit) Color Management Resource (CMR).

passthru

InfoPrint will use the specified **-ocmr** value to tag the output AFP as both an input (audit) CMR and an output (instruction) CMR.

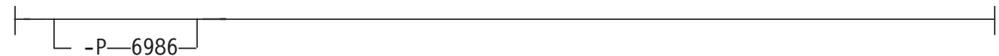
If you specify two or more **-otag** flags on a transform command line, InfoPrint will use the last specified value.



Sets the number of bits per pel in output. This value must be **1, 4, 8, or 24**. If the output image type is IOCA FS10 or IM1, the number of output bits is set to **1** and this option is ignored. For IOCA FS11 output, the default is **24**. This number represents the maximum number of bits used per pel. Thus, even if the number of bits is set to **24**, a 4-bit grayscale image is still displayed in 4-bit format.



Sets the output color model to RGB, YCbCr, or YCrCb if the image type is IOCA FS11 and the number of output bits is 24. Otherwise, this option is ignored. The default is **ycbcr**.



- Specifies the port number **gif2afp** uses to make a connection with the Transform Manager (set by the **-S** flag). When the **-S** flag is not specified or the **-S** flag specifies **none**, the **-P** flag is ignored.

6986 The port number if InfoPrint Manager is connected to Transform Manager.

Note: To find out which ports are already being used on your system (although they might or might not be active), look in the **/etc/services** file.



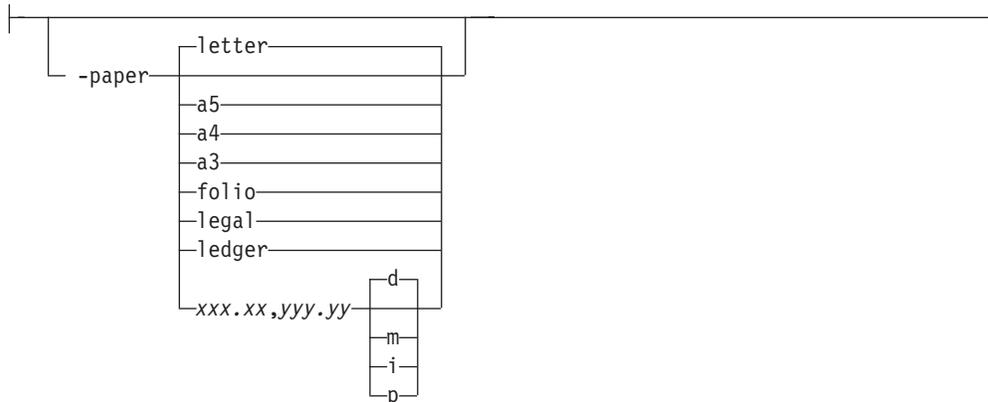
- Specifies that the output should only contain the specified pages. If no **-p** option is given, all the pages are output. Multiple **-p** options can be specified. Their effect is cumulative. Regardless of the order in which the pages are specified, they are always printed in ascending order. The recognized values are:

even Print all even pages
odd Print all odd pages
nn Print page *nn*
nn-mm Print pages *nn* to *mm*, inclusive.
nn- Print all pages starting with page *nn*

Pages are numbered starting with 1.



Sets the output page type to be page, overlay, page segment or object. The same page type is set for every page in the output. Thus, unless you use option **-p** to select a single page, multiple page segments or overlays are stored in the output file. The default is **page**. See option **-a**.



- Specifies the output paper size. The supported values are:
- a3** A3 format (297 by 420 mm or 11.69 by 16.54 inches)
a4 A4 format (210 by 297 mm or 8.27 by 11.69 inches)
a5 A5 format (148 by 210 mm or 5.83 by 8.27 inches)
letter 8.5 by 11 inches (216 by 279 mm)
folio 8.5 by 13.0 inches (216 by 330 mm)
legal 8.5 by 14.0 inches (216 by 356 mm)

ledger 11.0 by 17.0 inches (279 by 432 mm)

xxx.xx,yyy.yy

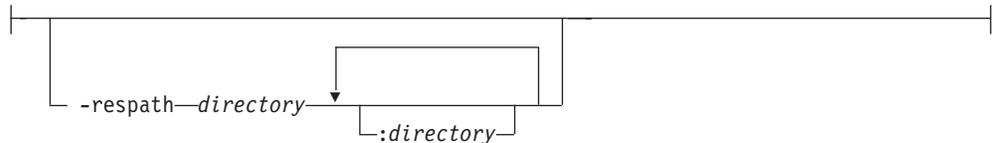
Horizontal and vertical page dimensions. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**.

The default paper size is letter. If **-paper** is not used, the paper size is increased, if necessary, to contain the output image.

See options **-l**, **-w**, and **-scale**.



- The output device resolution, specified in dots per inch. The default is **300**. This option is equivalent to the **default-printer-resolution** document attribute on the **pdpr** command.



Sets the search path for resource files, such as the scan offset files and grayscale calibration curve files. If a resource file name is specified as a relative name (does not start with a `/`), the transform searches every directory in the path, in the order specified in the path, until it finds the file (or fails). See options **-j** and **-gcorr** for scan offsets and grayscale calibration curve. The default is the current directory.



- The image is rotated in the clockwise direction by the amount specified. The default is zero, that is, no rotation. If **p** is specified, the transform sets the output data stream in such a way that the printer performs the actual image rotation. If **i** is specified, the transform rotates the output bitmap. When **i** is chosen, the transform takes much longer to run and uses much more memory. If no letter is specified, the default or any previous value (such as the value specified in the configuration file) remains in force. The default is **p**.



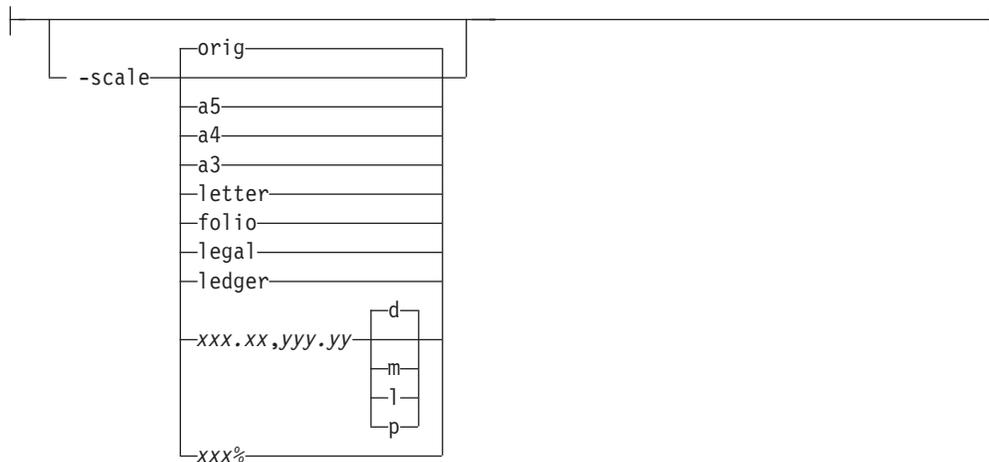
- Specifies the name of the system on which the Transform Manager is running. The value is:

ServerName

Any valid workstation name on which the Transform Manager is installed and running. The name is defined in the `/etc/hosts` file or by a name server, and can be a nickname like **molly**, or a dotted decimal address like **9.99.9.23**.

none Processes the **gif2afp** transform locally.

Note: When the **-S** flag is not specified or the **-S** flag specifies **none**, the **-P** flag is ignored.



- Specifies the output image size. The image is scaled to this size and centered in the area defined by the paper size and margin options. The supported values are:

orig Preserve the input image size, regardless of the printable paper area.

a3 A3 format (297 by 420 mm or 11.69 by 16.54 inches)

a4 A4 format (210 by 297 mm or 8.27 by 11.69 inches)

a5 A5 format (148 by 210 mm or 5.83 by 8.27 inches)

letter 8.5 by 11 inches (216 by 279 mm)

folio 8.5 by 13.0 inches (216 by 330 mm)

legal 8.5 by 14.0 inches (216 by 356 mm)

ledger 11.0 by 17.0 inches (279 by 432 mm)

xxx.xx,yyy.yy

Horizontal and vertical page dimensions. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**.

xxx% Magnification relative to the original image size. Numbers below 100% mean reduction, while Numbers above 100% mean enlargement. For example, **-scale 200%** causes the output image to be twice as long and twice as wide as the input image.

The default image size is **orig**.



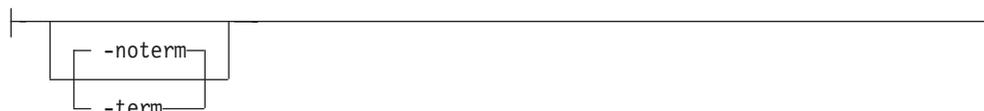
- Specifies the name of the scanner-related calibration file. If **-calib** is absent, this option is ignored.

A detailed description of **-sgcorr** is beyond the scope of this document.



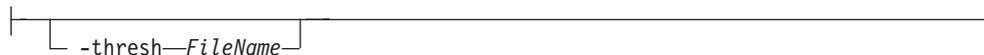
- Turns automatic conversion to black on white for bi-level images on (**-sniff**) or off (**-nosniff**). The automatic conversion algorithm counts the number of 0 and 1 bits in the image. If there are fewer zeros, it assumes the printed features are represented by zeros (white on black), and inverts the image to be black on white. The detection and conversion are done after the conversion specified by the Photometric Interpretation tag is applied (if any).

This option is ignored if the image is not bi-level. The default is **-nosniff**.



- Disables (**-term**) or enables (**-noterm**) error recovery.
 - When error recovery is disabled, on encountering an error in a GIF file, the transform terminates with an error message and a nonzero return code.
 - When error recovery is enabled, the errors in GIF files are treated as non-fatal. The transform tries to recover with the next image in the file, or with the next file. The return code is zero.

The default is **-noterm**.



Specifies a file that contains a PostScript Type 1 or Type 3 halftone dictionary. Alternatively, the PostScript code can specify the **setscreen** operator instead of a Type 1 dictionary. You can use the halftone cell in the dictionary to overwrite the default ordered dither clustered dot halftone cell. If the PostScript code contains a transfer function, either in the halftone dictionary or specified by the **settransfer** operator, the current grayscale correction curve is overwritten as if **-gcorr** were used.



- Turns verbose mode on (**-v**) or off (**-nov**).
 - When verbose mode is on, the transform prints a message as it opens each resource file, then echoes the command line, then prints a message for each file name as it is processed.
 - When verbose mode is off, the transform prints only error messages.

The default is **-nov**.



Specifies the paper width. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. The default page width is 8.5 inches. See options **-l** to set the paper length or **-paper** to set both dimensions at the same time.



Specifies the left margin. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. The default is zero (no margin).



Specifies the top margin. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. The default is zero (no margin).

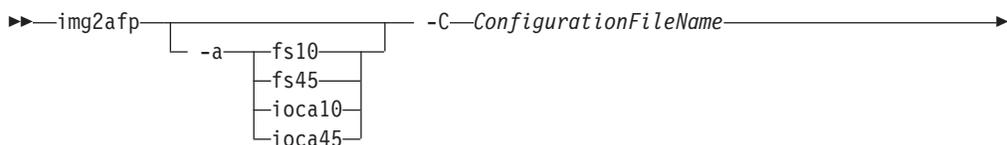


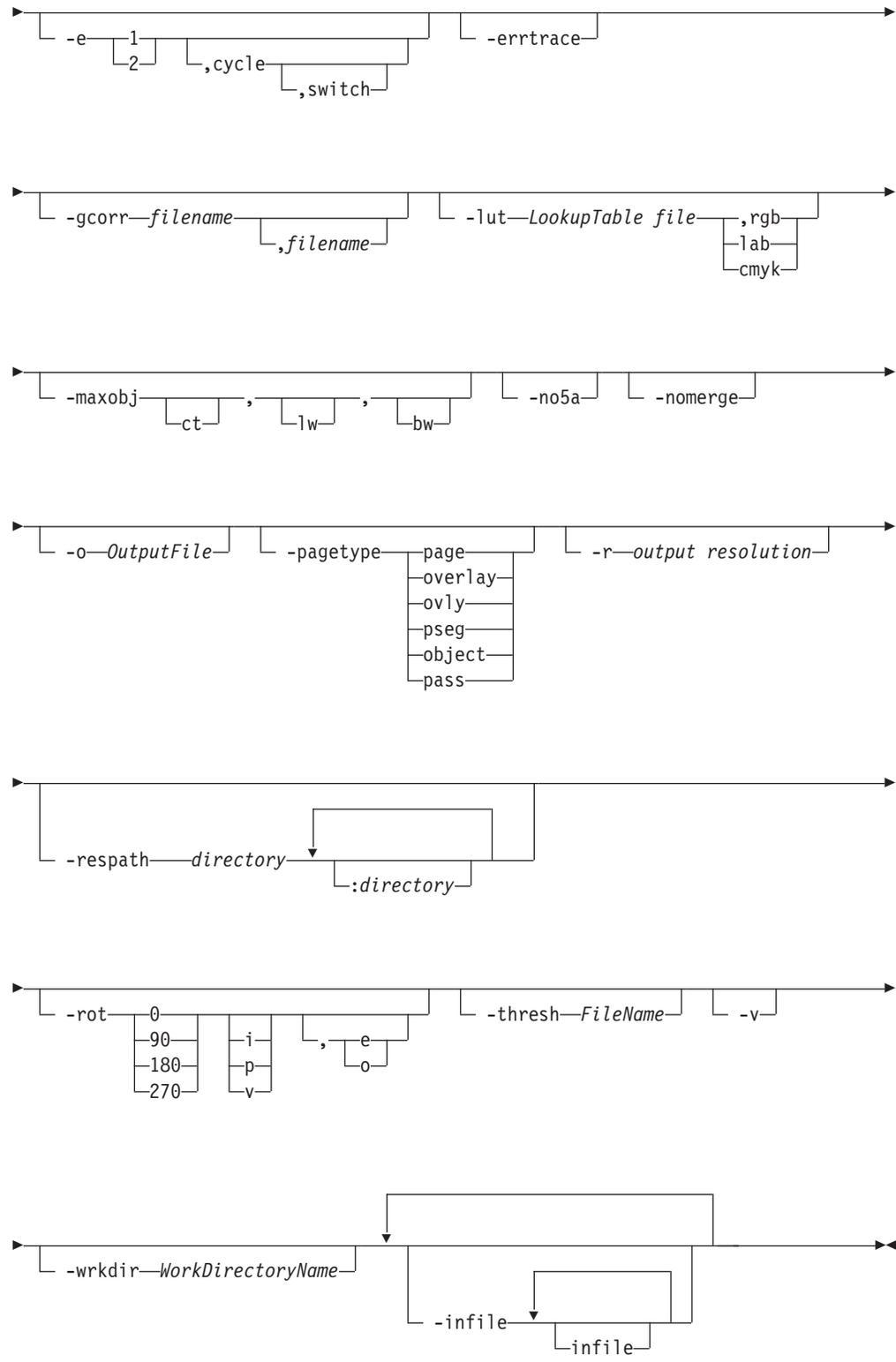
Signifies that a list of files to be processed is submitted from standard input. See also options **-f** and **@**.

img2afp command: transforms image data to AFP

Syntax

img2afp command





Description

The **img2afp** command conditions an FS45 image file for printing on a high-speed color printer, such as the InfoPrint Color 130 Plus, or transforms the FS45 image

into an FS10 image with halftones for printing on a bi-level black and white printer, such as the InfoPrint 4100 printer. The **img2afp** command can only be invoked from the command line.

Note: **img2afp** only processes images containing pure IOCA data or IOCA data overlaid by bi-level-compatible OCAs accurately.

By default for FS45 output, **img2afp** merges the images and tiles in the input data stream so that the output has the specified number of objects on each scanline and contains three types of images: contone, linework, and bi-level. Even though the images in the input data might be merged, the datatypes remain the same, that is, linework remains linework. **img2afp** produces output that is suitable for high-speed color printing, so the transform applies any indicated image processing operations, such as scaling, cropping, or rotating, to the input data. **img2afp** rasterizes any image resources and merges them in the output.

img2afp can also output bi-level FS10 output by converting the FS45 object to grayscale halftones using the lookup table and merging them into a single image.

img2afp uses an ordered dither algorithm, where the screen (threshold array) can be specified on the command line. To support multi-engine printers, separate grayscale calibrations can be specified for front and back sides of the output, and the **-e** option can be used to determine which pages are front and which pages are back.

For more information about the **img2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Options and configuration

The **img2afp** behavior is controlled by the internal defaults, configuration files, and command line options in the order of increasing priority. The internal defaults are loaded first. The command line is then parsed for the **-C** options, indicating configuration file names. The configuration files are processed in turn. Finally, the remaining command line options are processed. If an option is specified multiple times, later specifications override earlier specifications. The **-rot** option is an exception to this rule; it is cumulative.

The configuration file syntax is attribute = value. A '#' indicates a comment to the end of the line. The attribute names are the same as the command line options, so “**-option value**” becomes “**option = value**” in the configuration file. For options that do not take values, “**yes**” must be used in the configuration file. The case of the option is significant, but the case of the value is not, unless the value is a filename. An example of a configuration file follows:

```
#sample configuration file
v = yes # equivalent to -v
a = fs10 # bilevel output
```

All options except **-C** can appear in a configuration file. Spaces between the option and value on the command line and around the equal sign are optional, so “**-afs10**”, “**-a fs10**”, “**-a=fs10**”, and “**a = fs10**” are all valid.

Input and output

By default, **img2afp** reads data from the standard input and writes it to the standard output.

The output file name can be specified explicitly with the **-o** option. Input file names can also be specified on the command line.

By default, output is a printable document. Overlay, object, or page segment output can also be selected with the **-pagetype** option.

The MO:DCA structured fields are separated by the 0x5A separator in the output file unless the **-no5a** option is used.

Processing Logic

The input data stream can contain two different classes of object: resources and imagable objects, such as printable pages and overlays. By default, the resources are merged into printable pages. If the **-nomerge** option is specified, the resources are processed in place, as if they were imagable objects and left as resources. Resource invocation calls are then left unchanged.

By default every imagable object is left as the same type as in the input. For example, an input file containing a single overlay would be output as an overlay. The **-pagetype** option can be used to force conversion of each imagable object to the specified type, such as page, overlay, or page segment.

The **img2afp** transform does not have the ability to rasterize non-IOCA data. If an input imagable object contains a mixture of IOCA and non-IOCA data, the transform just passes the non-IOCA data through. In the output, the image is put on the bottom and the other OCA data is put on top. If the input data stream intermixes the OCAs (for example, part of the text is obscured by an image), the output page displays incorrectly. If FS10 (bi-level) output is chosen and the non-IOCA data contains color, the resulting output might fail on a black and white printer.

Limitations

- The **img2afp** transform is intended to process the color output of the **ps2afp** transform, the **pdf2afp** transform, the raster image transforms, and the **ppml2afp** transform. Data streams that use features not generated by these transforms, such as different resolutions or scale to fit, might result in errors from the **img2afp** transform.
- One bit for each spot CMYK images, such as FS42, is not supported on input.
- Only inline resources can be merged by the **img2afp** transform. External resources are allowed, but these are just passed through as if they are non-image data.
- If the input data stream contains non-IOCA data, it might process incorrectly (see “Processing Logic” for more information).

Options and values



- Choice of the output image type. For bi-level output, the input images are converted to grayscale, halftoned (see **-gcorr**, **-lut**, and **-thresh** for more information), and merged into a single image. For FS45 output, the objects of

like type are merged depending on the **-maxobj** command. To set the page type (that is page, overlay, page segment, or object), the **-pagetype** option can be used.

The default is FS45.

— **-C** *ConfigurationFileName* —

- The name of a configuration file containing option-value pairs. If multiple **-C** options are given on the command line, they are processed in order.
If this option is not specified, the default configuration file `/usr/lpp/psf/img2afp/img2afp.cfg` for InfoPrint Manager for AIX and `install_path\img2afp\img2afp.cfg` for InfoPrint Manager for Windows is used if it exists.

— **-e** *1* *2* *,cycle* *,switch* —

- Engine calibration switch. If two calibration files have been specified with the **-gcorr** option, the **-e** option defines the algorithm for deciding which engine is used for which image. The first entry denotes the engine that is used to print the first image. The optional **cycle** entry specifies how many consecutive pages to print and the same engine and defaults to 1. The optional **switch** entry specifies the number of the page where the engine assignment switches and which prints on a different engine than it would otherwise (this feature is used for printing booklets). For example, `-e 1,1` would cause the images to be halftones for engines 1 2 1 2 1 2 1 2 1 2; `-e 1,1,3` would result in 1 2 2 1 2 1 2; and `-e 1,4` would result in 1 1 1 1 2 2 2 2 1 1 1.

If the **-gcorr** option specifies only a single grayscale calibration curve, this option is ignored. If the **-e** option is missing, all images are halftoned using the first calibration curve specified with **-gcorr**, even if **-gcorr** specifies multiple curves.

— **-errtrace** —

Causes the transform to output a full error trace in addition to the regular error message. Communicate this trace to InfoPrint Solutions Company support personnel to assist them in diagnosing the problem.

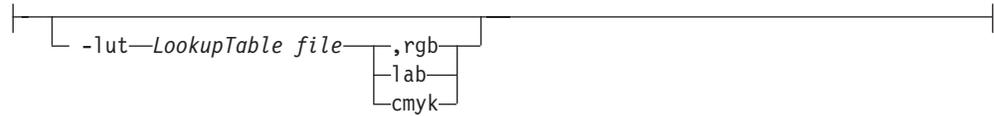
— **-gcorr** *GrayscaleMappingTable* *,GrayscaleMappingTable* —

- Specifies files with grayscale mapping tables for halftoning of the grayscale and color images to bi-level for output. The mapping table must be provided to compensate for the printing characteristics of the particular output device and paper type, such as dot gain. This file must contain PostScript code specifying a transfer option, including the **settransfer** command can also be specified.

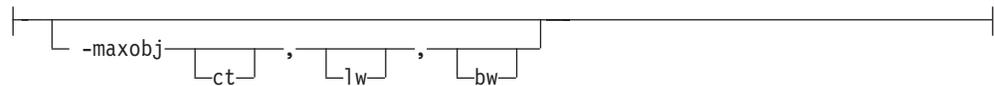
The algorithm converts every CMYK image to 8-bit grayscale before applying the halftoning algorithm.

If two files have been specified, **img2afp** uses each file to represent a engine calibration in a two-engine printer. In that case, the **-e** option is used to define the rules for switching between the calibration curves. See the **-lut** and **-thresh** options for more information.

Halftoning is very device-specific. Omitting the **-gcorr** option produces output that is probably unacceptable in quality. The calibration curves specified with **-gcorr** impact only the bi-level output. Therefore, this option is only meaningful for FS10 output.



Specifies the filename for the color conversion lookup table file. You can use this file to specify the conversion between the CMYK color found in the FS45 data and the K-only data that is needed to halftone the output. If this option is not specified, **img2afp** uses an internal 9x9x9x9 LUT. This option is only meaningful for FS10 output.

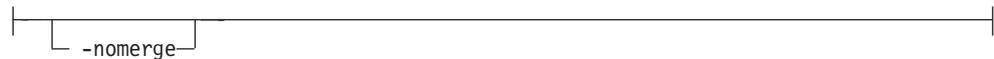


Governs the maximum number of output objects per scanline for continuous tone (**ct**), linework (**lw**), and bi-level (**bw**). The output is guaranteed to have no more than the number of objects specified, but can have fewer, depending on the input data. The numbers given must be greater than zero. If any value is omitted, the current value used by the transform remains unchanged. This option applies only to FS45 output. For FS10 output, a single object is built. The default is **2,2,2**.



- By default, **img2afp** separates output MO:DCA records with the **0x5A** byte separator. This option changes the behavior, so no separators are inserted.

Note: The output separator presence is unrelated to the presence of the separator in the input file.



By default, **img2afp** merges any inline image resources into the output pages. This option prevents merging, so the resources will remain separate.



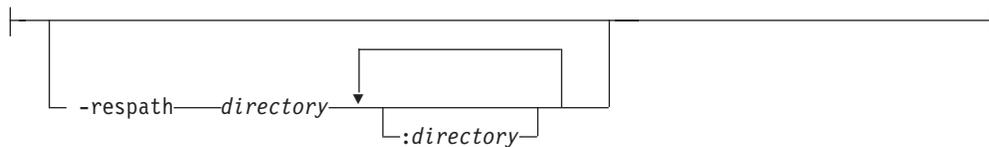
Optional output file name. Specify **"-"** for standard output. The default is standard output.



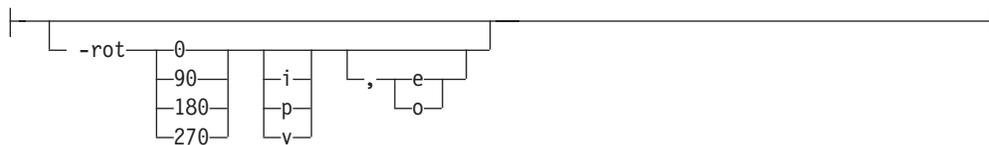
Specifies the output page type as page, overlay, page segment, or object. When the input contains multiple pages, the overlays, page segments, or objects are stored in the output file. Pages are always enclosed in a document that begins with a BDT and ends with an EDT. Use **pass** to signify that the input objects should remain unchanged. The default is **pass**.



Specifies the output data stream resolution. The default is 600.



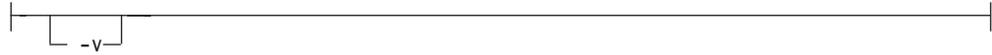
Specifies the search path for resource files, such as the threshold grayscale calibration curve files. If a resource file name is specified as a relative name (does not start with a /), the transform searches every directory in the path, in the order specified in the path, until it finds the file (or fails). See options **-lut**, **-thresh**, and **-gcorr** for lookup table, halftone threshold array, and grayscale calibration curve. The default is the current directory.



Specifies the output rotation. The specification has three parts: amount to rotate, who performs the rotation, and what does the rotation apply to. The output can be rotated in increments of 90 degrees. The rotation can be performed in the transform (**i**) or in the printer (**p**). There is also virtual rotation, where the page is rotated internally by the specified amount, while the printer rotation is set to the negative of the amount. This in effect pre-rotates the image if the printer does not print in the portrait mode. Examples are 1-up printing on the continuous forms printers and landscape cutsheet printers, such as the InfoPrint 20. The **i** and **p** persist in the sense that a following rotation specification will retain internal/printer context unless it contains another **i/p/v** specification. The **v** applies only to the current specification. The final part of the option specifies whether the rotation applies to even pages or odd pages. If this specification is missing, the rotation applies to all pages. Rotation specifications are cumulative. The default is **0p** (no rotation, printer, applies to all pages).



Specifies a file that contains a PostScript Type 3 halftone dictionary. You can use the halftone cell in the dictionary to overwrite the default ordered dither clustered dot halftone cell. Halftoning is very device-specific. Omitting this option produces output that is likely to be of unacceptable quality. The output quality can also be affected adversely if the right calibration curve (specified with **-gcorr**) is not used. This option is only meaningful for FS10 output.

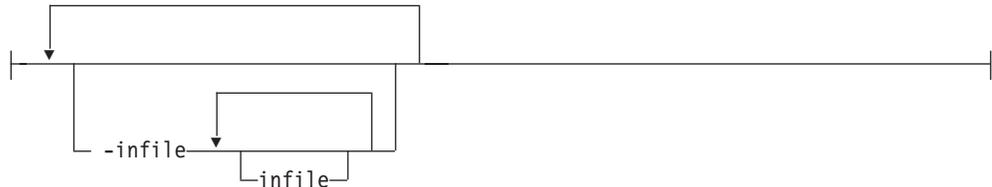


Turns verbose mode on (**-v**). **img2afp** echoes each file name as it is being processed as well as echoing the command line. Verbose is off by default.



- This option specifies which directory to use for work files. If this option is absent or the directory cannot be opened, the transform first tries to use `/var/psf/img2afp` as the working directory, and if `/var/psf/img2afp` is absent, the transform uses `/tmp`.

With AIX, the work files are never visible to you because the work files are immediately unlinked after creation. Thus, the work file is always deleted when **img2afp** finishes execution, even if **img2afp** is killed or otherwise terminates in error.

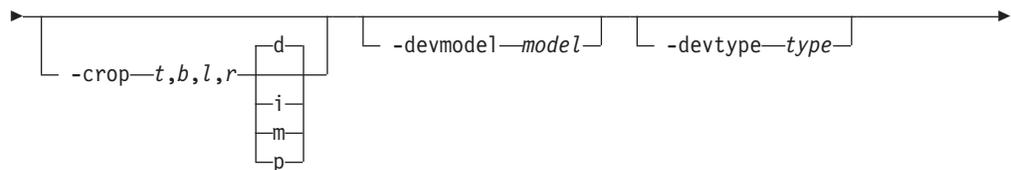
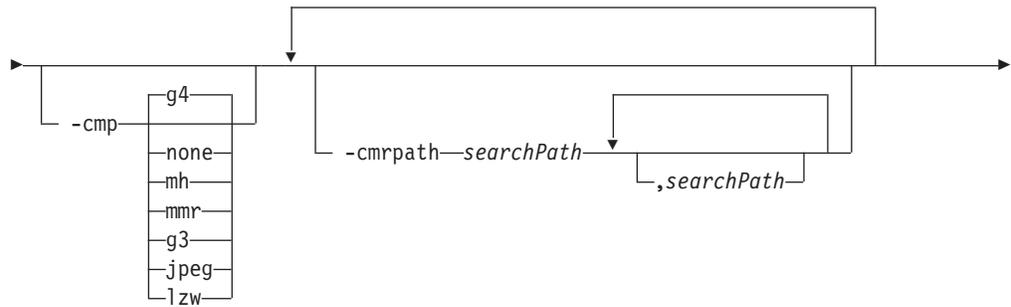
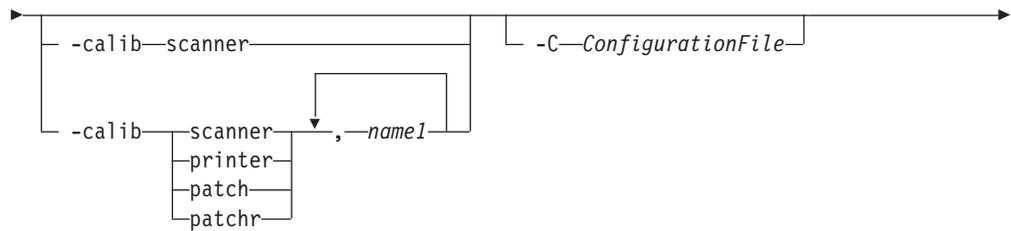
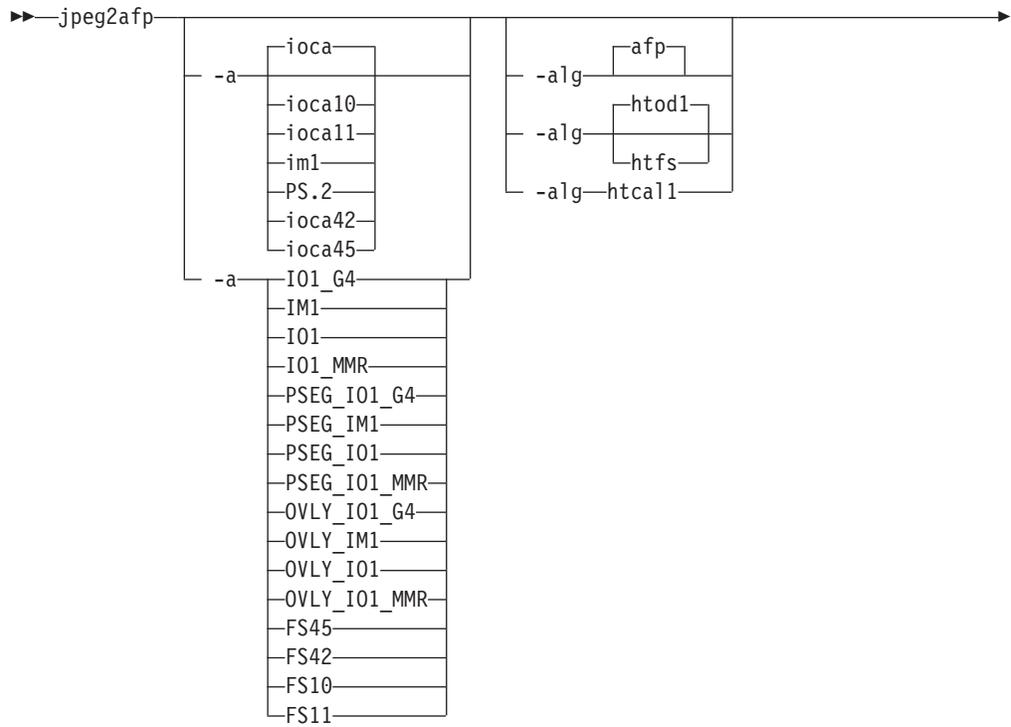


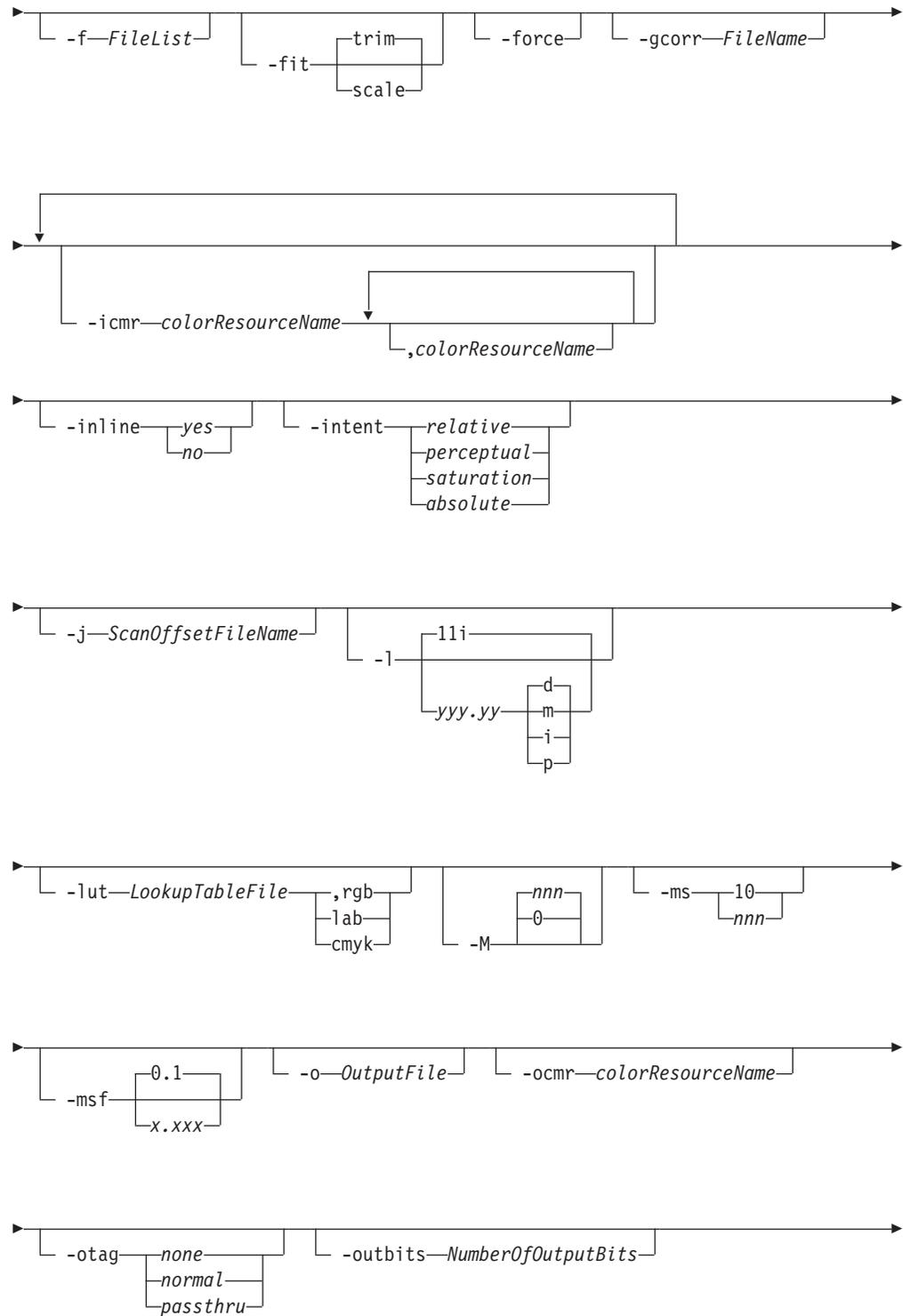
Specifies one or more optional input files. If no input files are specified, **img2afp** expects input on the standard input.

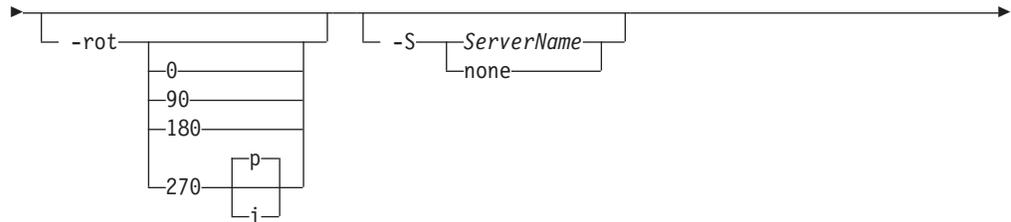
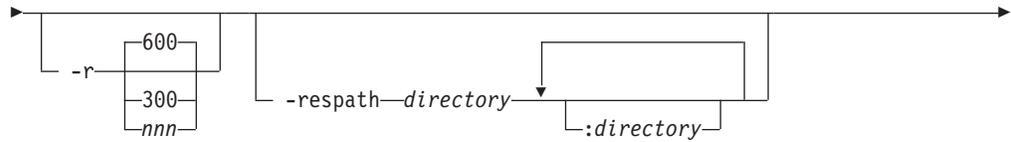
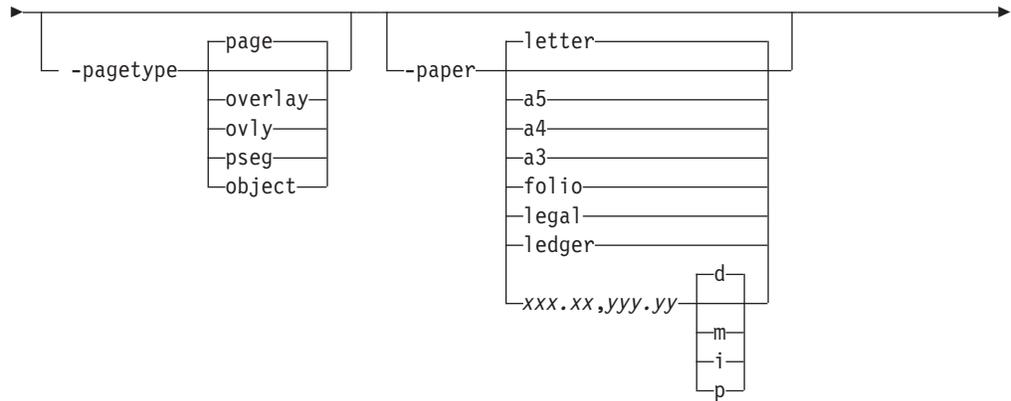
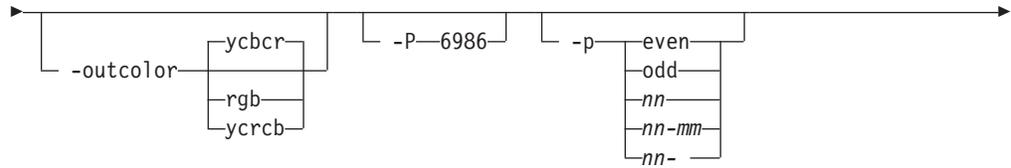
jpeg2afp command: transforms JPEG data to AFP

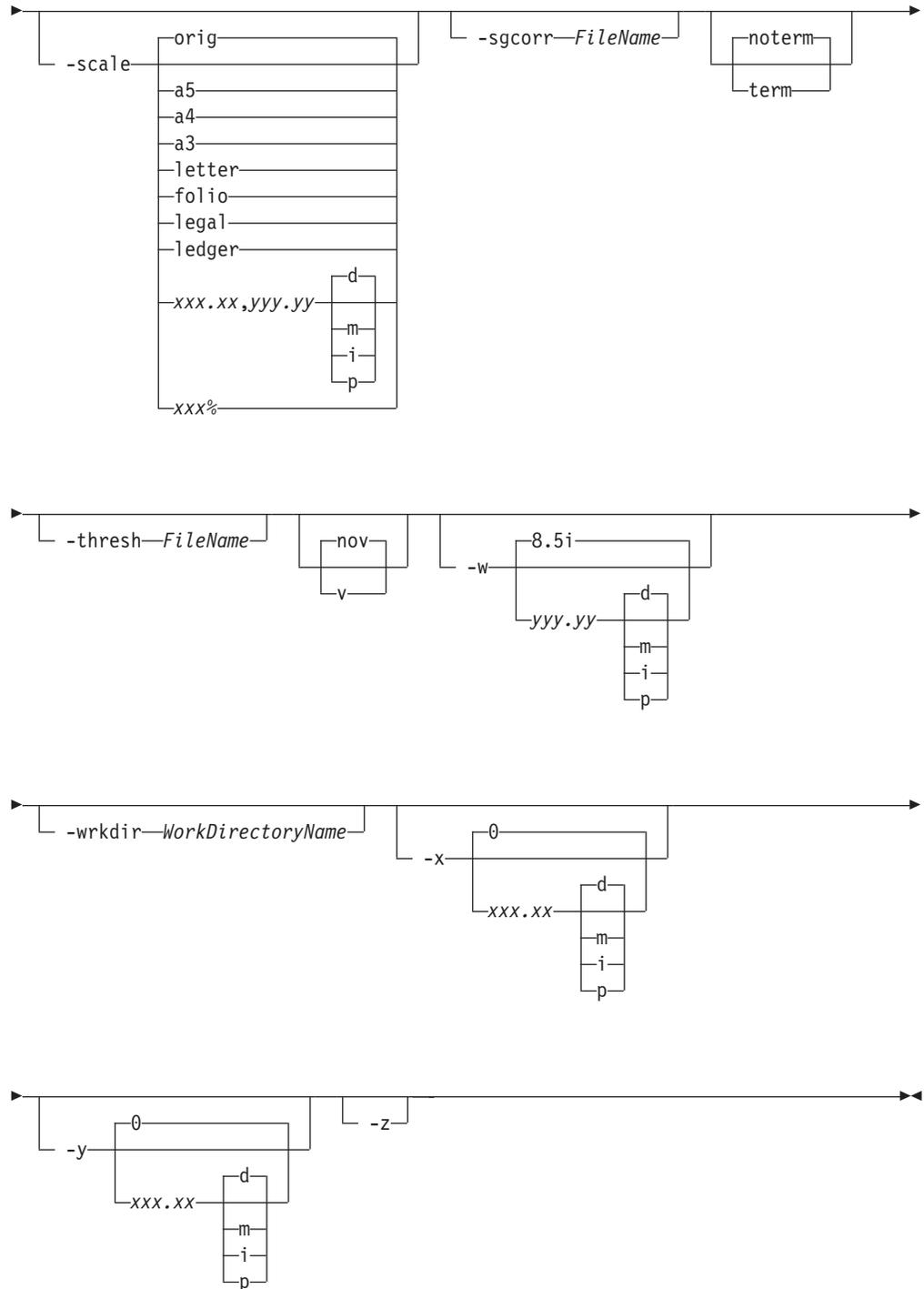
Syntax

jpeg2afp command









Description

The `jpeg2afp` command transforms a JPEG (Joint Photographic Experts Group) data stream into an AFP (MO:DCA-P) or PostScript Level 2 data stream file.

The transform can process images compressed using baseline lossy JPEG compression. Only 8 bits per channel and Huffman coding are supported. The

output can be bi-level (IM1 or IOCA FS10), 4-bit or 8-bit gray scale, or 24-bit YCbCr color (IOCA FS11), bi-level or 4-bit banded CMYK image at 1-bit per band (IOCA FS42), or a superset of FS42 that also contains 32-bit banded CMYK images, compressed with either JPEG or LZW algorithms (IOCA FS45). The transform automatically uses halftoning to convert the gray scale and color images to bi-level.

For more information about the **jpeg2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Automatic invocation

The PSF DSS automatically invokes the **jpeg2afp** transform command whenever you submit a JPEG file for printing. You can pass options to **jpeg2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **jpeg2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-alg**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**.

Input and output

jpeg2afp can process either standard input or multiple files specified on the command line. If no input file is specified, **stdin** is assumed. Standard input is cached to a file (see the **-wrkdir** option) and then processed. Only a single JPEG file should be submitted using **stdin**. If multiple JPEG files are concatenated using standard input, all except the first one are ignored.

If an input file is specified on the command line, it can be either a JPEG file, a directory, or a file list (**-f** and **@** prefixes). Multiple input file specifications are allowed. The transform processes each file in the order in which it was specified on the command line. If the **-z** option is specified, a list of file names to be processed is also submitted using standard input. The files on the list are processed as if the list were given with the **-f** option on the same place on the command line as **-z**.

If the file name points to a directory, **jpeg2afp** processes every file in that directory. The files are processed in the order they would be shown using the **ls -a** command. Directory search is not recursive, that is, the subdirectories are not searched.

If the file name is preceded by the **-f** option or the at sign (**@**), **jpeg2afp** assumes that the file contains the list of JPEG files to be processed. Each of the files in the list is processed in the order it was listed.

If a JPEG file has the extension **.jpg**, **.jpeg**, **.JPG**, or **.JPEG**, this extension need not be given explicitly. **jpeg2afp** first tries to open the file as specified, and if unsuccessful, tries to append the extensions **.jpg**, **.jpeg**, **.JPG**, and **.JPEG** in turn.

For example, suppose that:

- The directory **tFiles** contains the files **file1.jpg**, **file2.jpg**, **file3.jpg**, and **file4.jpg** and nothing else.

- The file `flist` in the current directory contains the two file names `tFiles/file2.jpg` and `tFiles/file3.jpg`. The names listed in the file list can have their extensions omitted.
- The file `flist2` contains the file name `tFiles/file4`. Again, the names listed in the file list can have their extensions omitted.

To process files `file1.jpg`, `file2.jpg`, `file3.jpg`, and `file4.jpg`, any of these invocations of **jpeg2afp** would work:

```
jpeg2afp tFiles/file1.jpg tFiles/file2.jpg tFiles/file3.jpg tFiles/file4.jpg
jpeg2afp tFiles/file1 tFiles/file2 tFiles/file3 tFiles/file4
jpeg2afp tFiles/file*.jpg
jpeg2afp tFiles
jpeg2afp tFiles/file1 -fflist tFiles/file4
jpeg2afp tFiles/file1 -f flist tFiles/file4
jpeg2afp tFiles/file1 -f flist -f flist2
jpeg2afp tFiles/file1 @flist @flist2
```

Note: With InfoPrint Manager for Windows, you can enter separators in path names as backward slashes or forward slashes.

The file list files allow the display text to be added for each file. A display text is any text starting with the pound character (`#`) and extending to the end of the line. The display text should follow the file name and can extend over several lines, up to 2048 characters long. The initial `#` character on each line is discarded. If a display text is present for a file name, that text is displayed in the status and error messages instead of the file name. This is useful if **jpeg2afp** is invoked using temporary files whose names are meaningless to the user. Any display text before the first file name is treated as comment and discarded. Display text is allowed also if you use the `-z` option to submit the file list using standard input.

The output file name can be either specified explicitly with the `-o` option or derived from the input file name. If multiple input files have been specified, the default output file is standard output. If a single input file is given and the output file is not specified explicitly, the transform strips the `.jpg` or `.jpeg` extension from the input file name (if one is present) and appends the `.afp` extension for AFP output or the `.ps` extension for PostScript output, to get the output file name.

To disable automatic output file name generation and force the default output stream to be the standard output in all cases, set the environment variable **JPEG2AFP_o** to `-` or `stdout`, or alternatively, put the line `o=-` or `o=stdout` into the configuration file and invoke that configuration file using the `-C` option or the **JPEG2AFP_C** environment variable.

For example, all these commands:

```
jpeg2afp myfile
jpeg2afp myfile.jpg
jpeg2afp myfile -o myfile.afp
```

have `myfile.afp` as the output file. There is no requirement for the explicitly specified input and output files to have `.jpg` and `.afp` extensions. To process JPEG file `foo.bar` into an AFP file `foo.bar2`, invoke the transform using:

```
jpeg2afp foo.bar -o foo.bar2
```

The output data stream is MODCA-P or PostScript Level 2. MODCA-P data can be encoded as IM1 or IOCA Function Sets (FS) 10, 11, 42, or 45. IM1 images are bi-level and uncompressed. Function Set 42 is tiled, while Function Sets 10 and 11 are not. All IOCA function sets can contain bi-level image data. In addition,

Function Set 11 can also contain 4- and 8-bit grayscale, as well as 24 bit (8 bits per plane) YCbCr color. Be aware that AFP Workbench is the only product that supports IOCA FS11 images, that is, grayscale and YCbCr color AFP images are not supported by any printer. In addition to bi-level images, Function Set 42 can also contain 4-bit (1 bit per plane) CMYK data. The InfoPrint Color 100 AFP printer fully implements IOCA FS42. Function Set 45 is a superset of FS42 and supports 32-bit (8 bits per plane) CMYK images, as well as transparency masks and different relative resolutions. FS45 is implemented in the InfoPrint Color 130 Plus printer.

While FS45 and FS42 can contain image divided into a number of tiles, the transform currently outputs the image in a single tile. The IOCA output image data can be either uncompressed or compressed using one of several algorithms (see the **-cmp** option). The default compression algorithm for bi-level image data is ITU-TSS T.6 Group 4, while the compression algorithm for grayscale and YCbCr defaults to no compression. CMYK images in FS42 are carried in the planar (banded) format, and each band is compressed separately as a bi-level image.

The default compression for FS45 output is JPEG, which is downsampled by a factor of two. Use **-cmp lzw** to obtain LZW-uncompressed, unsubsampling output.

Note: LZW compression should be used only for linework images and not for continuous tone images.

PostScript Level 2 images can be uncompressed or ITU-T T.6 Group 4 bi-level, uncompressed 8-bit grayscale or uncompressed 24-bit RGB color. By default, the transform leaves scaling and halftoning to the printer (that is, color JPEG images are output as 24-bit RGB color images).

Errors and error recovery

jpeg2afp divides errors into fatal and non-fatal. The fatal error categories are:

- Errors in the user-specified parameters, either in the environment variables, the configuration file, or the command line arguments. These errors include unrecognized options, incorrect values for parameters, or inability to open the configuration file or the output file.
- Out of memory errors. The requested memory is larger than the memory specified using the **-M** option or the dynamic memory allocation has failed.
- Disk space errors. The transform guards against trying to write to a full file system. See the **-ms** and **-msf** options for setting the minimum free disk space requirements. If the file system is full, the transform deletes the partial output file before terminating.
- Internal errors.

In the case of a fatal error, the last output page might not be complete.

Errors found in the JPEG files are non-fatal and **jpeg2afp** tries to recover from them. These errors include not being able to open an input file, an input file not being a JPEG file, or an input file containing features that cannot be processed. If the transform fails to open 15 or more input files, it assumes an error in the parameter list (for example, **-f** was used with a file that does not contain a file list) and terminates.

If an error is found in a file, the transform tries to recover with the next input file. A warning message is issued. Errors and warnings are output to standard error.

For example, let a directory `tFiles` contain files `file1.jpg`, `file1.txt`, `file2.jpg` and `file3.jpg`, where `file1.txt` is an ASCII file. Invoking the transform with:

```
jpeg2afp tFiles
```

processes the bi-level images in all three JPEG files correctly. A warning is issued that `file1.txt` is not a JPEG file.

Non-fatal errors can be made fatal by using the option **-term**, or the corresponding environment variable or configuration file entry. If **-term** is set, the transform terminates in error if it encounters an error in the JPEG data stream.

Data transformations

If the input image is gray scale or color, and the output image type is bi-level (for example, IOCA FS10, or IM1), the transform internally scales the image to the desired size, then uses a halftoning algorithm (ordered dither, the default, or Floyd-Steinberg) to convert it to bi-level. In converting the image to bi-level, the characteristics of the output device, such as dot shape and dot gain, must be taken into consideration. The halftone screen and the calibration are extremely printer dependant. While the transform does contain an internal default (85 LPI screen at 45 degrees), an appropriate screen shipped with the InfoPrint Manager should be used and the halftone should be calibrated properly for best quality.

Some printers, such as the InfoPrint 4000, have two engines, one for each side of the sheet. Each engine commonly has a different calibration. Options **-thresh**, **-gcorr**, and **-e** provide the mechanism to specify halftone screen, gray scale correction curves, and rules for switching calibration based on the engine used to print a particular page. For very light or very dark images, the halftoning algorithms can be automatically recalibrated to preserve detail that would be lost using the default calibration. See option **-alg**.

To maintain the image quality, scaling must be done before halftoning. The halftoning algorithm is very compute-intensive. Unless the images are small, **jpeg2afp** might not be able to process the color images fast enough to feed even a slow printer.

To achieve good image quality for the CMYK output, the input image colors must be converted to CMYK, bearing in mind the characteristics of the particular halftones used to generate the output image. The color conversion is done using a multidimensional lookup table, which is specified with the **-lut** option. If the transform cannot determine the appropriate lookup table or the lookup table is missing, a simple conversion of RGB to CMY is performed using the 255-algorithm. This conversion does not use black and generally leads to poor color quality.

The size and the position of the output image on the page depends on several factors. In addition to the size specified to the transform, the result depends on the form map specified at print time and also on the form and options loaded in the printer. If the image is too large to fit on the page, it is trimmed to size by default. Use the **-fit** option to instruct the printer to scale the image to paper size. If the paper size has not been specified explicitly with the **-paper** option, the paper defaults to US letter (8.5 by 11 inches). If the image is larger than this, the paper dimensions are increased as necessary. If the paper size has been specified explicitly, it is not increased if the image will not fit on paper. Options **-l** and **-w** have the same effect as **-paper**.

The size of the actual image, as opposed to the paper size, is controlled by the **-scale** option. The **-scale** option can either specify "**orig**", or give an actual size. If **orig** has been specified, the output image has the same size as the input image. If **-scale** with an actual size has been specified, the output image is scaled to the desired size. A percentage enlargement/reduction can also be specified.

Even if **-scale orig** has been specified, the image might still need to be scaled if the input resolution is different from the output resolution. By default, the transform leaves scaling to the printer. The exceptions are images that are being halftoned, which are always scaled in the transform, and images that have different resolutions on the X and Y directions. The **-alg** option can be used to instruct the transform to do internal image scaling. Options **-alg**, **-clean**, and **-ink** select and configure various scaling algorithms used by the transform.

Note: Because JPEG files do not specify resolutions, the image is assumed to have the resolution of the output device.

If possible, **jpeg2afp** just rewraps the JPEG raster data in MODCA-P headers. This does not change the compression algorithm used in the data, even though it might be different than the output compression algorithm specified on the command line. The data is rewrapped only if no changes are to be made in the image and if the compression algorithm is supported by the IOCA standard. Besides the uncompressed data, the bi-level compression algorithms supported both by JPEG and IOCA are ITU-TSS T.4 Group 3 and T.6 Group 4 algorithms.

For 8-bit grayscale and 24-bit color images, both TIFF and IOCA FS11 support JPEG compression algorithms. However, TIFF and JPEG standards have different subsampling defaults than IOCA FS11. Thus, most 24-bit color images are not suitable for rewrapping, even if they use a JPEG compression algorithm and a color model supported by IOCA FS11. Also, JPEG is a lossy compression algorithm. Decompressing a JPEG image and then recompressing it again for output might result in reduced image quality. For that reason, the default is to use no compression for the gray or color output.

Be aware that not all the printers support all the recognized IOCA compression standards. To make sure that the transform decompresses the data and recompresses it using the specified algorithm, use the **-force** option. If the output image is IM1, the image is always decompressed and scaled in the transform.

The JPEG images are often divided into many segments for efficient memory handling. Some printers will terminate the printing in error if the page is too complex. For that reason, **jpeg2afp** decompresses, repartitions, and compresses the data if it determines there are too many segments in the picture.

Parameters

jpeg2afp behavior is governed by many parameters. The parameters are set by this hierarchy (least significant first):

- Internal defaults
- Environment variables
- Configuration file
- Command-line arguments

Command line arguments

- Options and input file names can appear on the command line in any order.

- When you run **jpeg2afp** as a standalone transform, the blank between option and value is optional (for example, both `-fittrim` and `-fit trim` are valid).
- When you use the **-o** flag of the **enq**, **lp**, **qprt**, or **lprafp** commands to pass options to **jpeg2afp**, no blank is permitted between option and value (for example, `-o-fittrim` is valid, but `-o -fit trim` is not).
- When you use the **other-transform-options** attribute on the **pdpr** command to pass options to **jpeg2afp**, any string containing a blank must be surrounded by single quotes (for example, both `other-transform-options=-fittrim` and `other-transform-options='-fit trim'` are valid).
- All values except file names are case-insensitive.
- If an option is specified multiple times, the last specification remains in force.
- If multiple configuration file names are given, they are processed in order.

Configuration file

The configuration file has entries of the form *option=value*, where each pair must be on a separate line. Options and other syntax are the same as for the command line arguments and the option names are the same. Input files and configuration files cannot be specified in the configuration file (that is, nested configuration files are not supported). In the case of options without values (for example, **-v**), the equals sign must be present.

Some command line options, for example, **-calib**, cannot be used in the configuration file or as environment variables. Options available only on the command line are noted as such in their descriptions.

If you do not specify a configuration file on the command line with the **-C** option, the transform checks for the existence of the default configuration file, **/usr/lpp/psf/jpeg2afp/jpeg2afp.cfg** with InfoPrint Manager for AIX and **install_path\jpeg2afp\jpeg2afp.cfg** with InfoPrint Manager for Windows. If this file exists, the transform uses it as the configuration file.

Here is an example of a valid configuration file:

```
scale = letter
r= 300
o = -
v=
```

Note: The spaces around the equals sign (=) are optional. In this example, the option-value pair **o = -** means that the default output file is the standard output. Output file name computation has been disabled.

Environment variables

Environment variables have the form **JPEG2AFP_option**, where *option* is the same as on the command line and the configuration file.

Some command line options, for example, **-calib**, cannot be used in the configuration file or as environment variables. Options available only on the command line are noted as such in their descriptions.

For example, to achieve the same effect as the configuration file in the last example, these statements have to be executed in the calling shell:

```
export JPEG2AFP_scale=letter
export JPEG2AFP_r=300
export JPEG2AFP_o=-
export JPEG2AFP_v=" "
```

There must be some value set for each desired option. For options that do not take a value, specify a blank surrounded by double quotes, for example:

```
export JPEG2AFP_v=" "    correct
export JPEG2AFP_v=      has no effect
```

Resource search path

For resource files, such as scan offset files and gray scale correction files, the transform searches the current directory by default. You can use the **-respath** option to specify a list of directories to be searched for such files. This resource path does not apply to the configuration file.

Limitations

- Only Huffman coding with baseline DCT JPEG algorithm is supported.
- At most 8-bit grayscale and 24-bit color are supported.

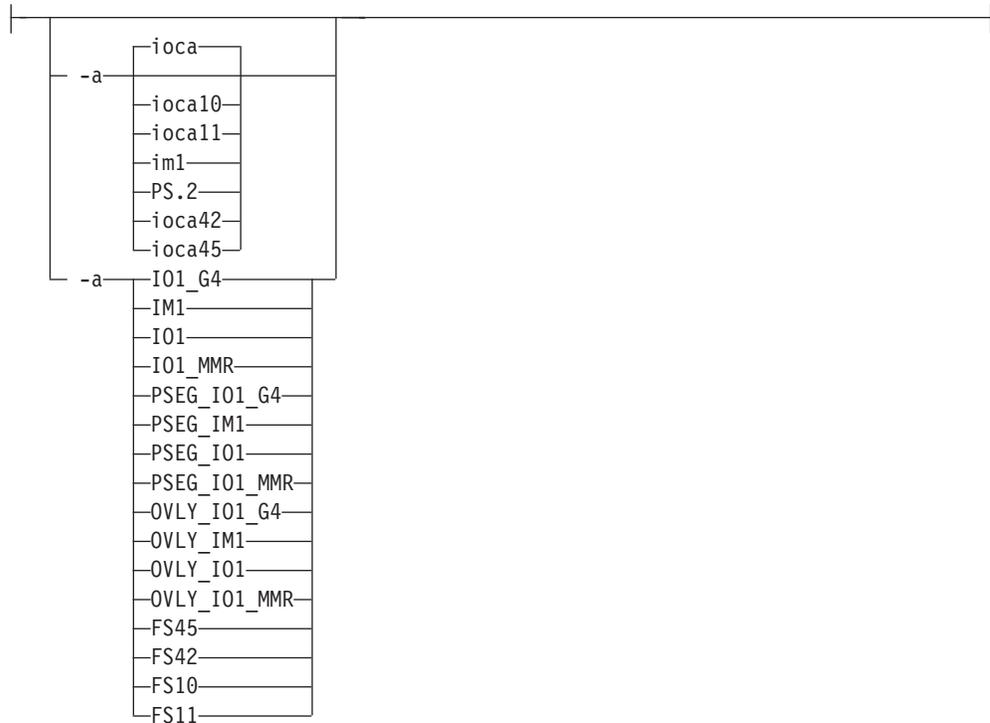
Acknowledgments

This software is based in part on the work of the Independent JPEG Group.

Options and values



Specifies a name of a file that contains a list of files to be processed by the transform. If the `@` option is present, the output file defaults to standard output, even if the list of files contains only a single entry. Multiple `@` options are allowed. Also see the `-f` and `-z` options. The `@` is not preceded by the dash, and is implemented to maintain compatibility with the **ps2afp** transform.



- Choice of the output image type. The first syntax selects between the IOCA FS 10 (**ioca**, **ioca10**), IOCA FS11 (**ioca11**), IM1, PostScript Level 2 (**PS.2**), IOCA FS42 (**ioca42**), and IOCA FS45 (**ioca45**) output. IOCA FS10 and IM1 yield bi-level images, while IOCA FS11 results in 4-bit or 8-bit gray or 24-bit color output (see option **-outbits**). Currently, the only product that supports IOCA FS11 is AFP Workbench. IOCA FS42 can contain either bi-level or 4-bit banded CMYK image at 1-bit per band. IOCA FS45 is a superset of FS42 that also contains 32-bit banded CMYK images, compressed with either JPEG or LZW algorithms. The output compression algorithm is set with the **-cmp** option. To set the page type (page, overlay, page segment, or object), use the **-pagetype** option. FS45 produces IOCA FS45 output.

The second syntax is to maintain compatibility with the **ps2afp** transform, and sets the image type (**IO1** for IOCA FS10 or **IM1** for IM1 output), compression (**G4** for Group 4 or **MMR** for Group 3), and page type (**PSEG** for page segment or **OVLY** for overlay). If **PSEG** or **OVLY** is not specified, the output is a printable page. If no compression algorithm is specified, the output is not compressed. The second syntax cannot be used for IOCA FS11 output.

Some older printers do not support IOCA images. In such cases, the IM1 output type should be chosen. IM1 images are uncompressed, and thus, use more space. The processing might also take longer since the IM1 image cannot be scaled by the printer, so internal scaling algorithms must be used. See option **-alg**.

The default is **ioca** for IOCA FS10 output compressed using the Group 4 algorithm.

This option is similar to the **image-out-format** document attribute on the **pdpr** command.



- Choice of the scaling and halftoning algorithms. You can specify multiple choices, separated by commas, for one **-alg** option. The effect is the same as specifying multiple **-alg** options. For example, **-alg htfs,htcal** is equivalent to **-alg htfs -alg htcal**.

The scaling algorithms are:

- If **afp** is chosen, the scaling is done using the default algorithm in the printer. This makes the transform much faster. If the image must be reduced, however, this algorithm might drop some information from the image, such as thin lines.

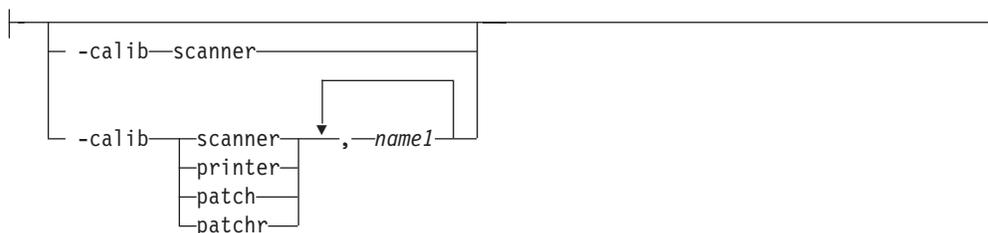
For color images with bi-level output, the scaling is always done before the halftoning algorithm. If a grayscale or color output is chosen (**-a ioca11**), this option is ignored and the algorithm is set to **afp**.

The halftoning algorithms are:

- **htod1** uses an ordered dither with a screen derived from the value of the **-thresh** option. The default is an 85 line per inch screen.
- **htfs** uses the Floyd-Steinberg algorithm.
- **htcal1** recalibrates the halftoning algorithm for each image. **htcal1** forces the transform to read the whole image into memory and requires an additional pass through the image. It should be used only for very light or very dark images.

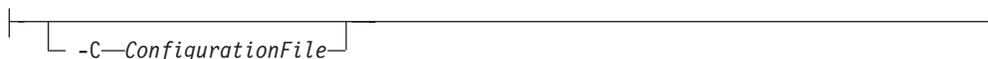
The default is **htod1**. Each halftoning algorithm uses a different internal default calibration curve. If the automatic calibration is turned on, a still different set of calibration curves are used.

See options **-gcorr**, **-paper**, **-scale**, **-thresh**, **-l**, **-w**, **-x**, and **-y**.



- Transform calibration for the scanner or printer. If **scanner** is specified, **-sgcorr** must be present. If **printer** is specified, **-sgcorr** might or might not be present. If **patch** or **patchr** is specified, **-sgcorr** (if present) is ignored. Detailed explanation of the calibration process is beyond the scope of this entry.

You cannot specify **-calib** in the configuration file or as an environment variable.



- The name of a configuration file containing option-value pairs. If multiple **-C** options are given on the command line, they are processed in order. Specifying

the configuration file on the command line overrides any specification done using the **JPEG2AFP_C** environment variable.

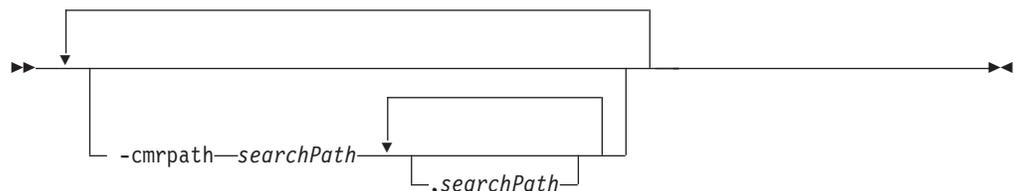
The default configuration file is `/usr/lpp/psf/jpeg2afp/jpeg2afp.cfg` with InfoPrint Manager for AIX and `install_path\jpeg2afp\jpeg2afp.cfg` with InfoPrint Manager for Windows.



- Choice of the output image compression algorithm:

- none** Uncompressed output
- mh** ITU-T T.4 G3 Modified Huffman
- mmr** IBM Modified Modified Read
- g3** ITU-T T.4 G3 Modified Read
- g4** ITU-T T.6 G4
- jpeg** JPEG non-differential Huffman coding with baseline DCT. The output image data should be compressed to reduce the file sizes and increase the printing speed.
- lzw** If `lzw` is specified, linework of 600 dpi is produced; otherwise, lossy JPEG at 300 dpi is produced. `lzw` only applies to FS45.

The default compression is ITU-T T.6 Group 4 for bi-level images and no compression for gray scale or color images. Some printers might not support Group 4 compression algorithm and require using the `-cmp` option to select a different one. The JPEG algorithm can compress only 8-bit gray scale and 24-bit color images. 4-bit gray scale images cannot be compressed.



- Specifies the search order for locating color resources. This search order is a series of directory paths that color resources are located in. If you specify two or more `-cmrpath` flags, InfoPrint will concatenate these search orders.



- Image cropping. *t,b,l,r* specify how much should be cropped from the image top, bottom, left edge, and right edge. The numbers are floating point and can be either positive or negative. Negative numbers indicate that a blank space should be inserted. The units are inches, millimeters, points, and dots (pels). The default is dots. The cropping is specified in the context of the output page, so that “top” means the top of the output page and so on, regardless of the **-rot** option. To crop, the transform enlarges the image by the amount to be cropped, then crops the specified amount by manipulating the actual bitmap. The resulting image has the size as specified by the explicit (or implicit) **-scale** option. See also option **-j**.

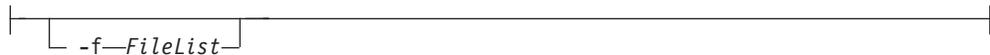
If **-fit trim** is specified, the right and the bottom edge of the image are not cropped. Instead, the image grows as necessary. Because **-fit trim** causes the output data stream to contain the “position and trim” specification, the printer discards any extra image.



- Specify the device model of the actual device.



- Specify the device type of the actual device.

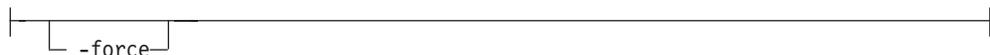


Specifies the name of a file that contains a list of files to be processed by the transform. If the **-f** option is present, the output file defaults to standard output, even if the list of files contains only a single entry. Multiple **-f** options are allowed. See also options **@** and **-z**.

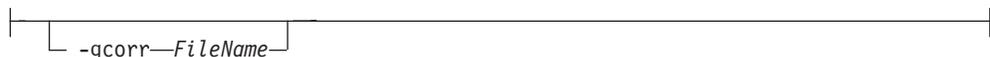


- Determines whether the printer behavior will be position-and-trim or scale-to-fit if the image is too large to fit on the paper. The default is **trim**.

This option is equivalent to the **image-fit** document attribute on the **pdpr** command.



If present, this option forces **jpeg2afp** to decompress and recompress the image, regardless of other factors.

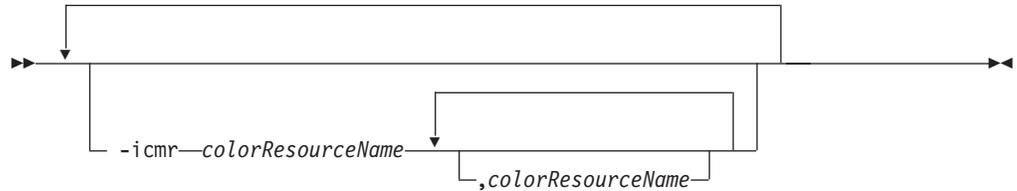


- Specifies a file with gray scale mapping table for halftoning of the gray scale and color images to bi-level for output. The mapping table must be provided to

compensate for the printing characteristics of the particular output device and paper type, such as dot gain. This file must contain either:

- 256 real numbers, one for each level of gray in the 8-bit gray scale image
- The PostScript **settransfer** operator

The algorithm converts every image to 8-bit gray scale before applying the halftoning algorithm. The default internal mapping table has been optimized for the 600-peI InfoPrint 4000 laser printer. You shouldn't change this unless you know what you are doing. See also options **-alg** and **-thresh**. PostScript code submitted with the **-thresh** option can have the same effect as **-gcorr**.



- Specifies one or more input or audit color resources. The color resources can be either ICC Profiles or Color Management Resources (CMRs). If you specify two or more **-icmr** flags on a transform command line, InfoPrint will concatenate the resources together. If two or more resources that are specified by the **-icmr** flags are for the same color space, InfoPrint will use the last specified resource.



- Specifies whether the output Color Management Resource (CMR) will be placed inline with the data stream. If you specify two or more **-inline** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies the rendering intent. You can also use the **-pragma** option to specify the rendering intent by setting:
`-pragma colorRendering=relative`

If you specify two or more **-intent** flags on a transform command line, InfoPrint will use the last specified value.



- Sometimes input images must be shifted to get the desired positioning on the page. The scan offset file contains the directions for shifting. The file has the format of

```
[attribute]
values
:
values
```

```
[attribute]
values
:
values
```

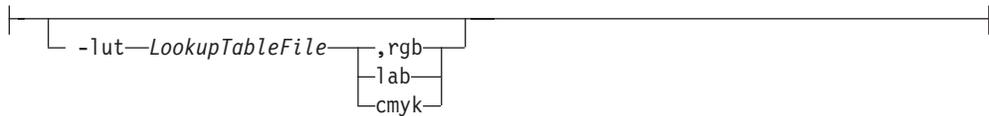
Currently, the recognized attributes are **[Units]** (values **millimeters**, **mm**, **inches**, **in**, **points**, **dots**, **pels**) **[Page_Offset_Type]** (values **crop** or **grow**) and **[Page_Offsets]**. The values for page offsets are in the format *FileName,Hhoriz,Vvert*. Each entry refers to a file. The file names must be specified (or at least the leading comma must), but are currently ignored and the offset factors are applied to each file in turn. The *horiz* and *vert* values are the amount that the image is to be shifted, in the horizontal and vertical direction. The positive directions are down and right (that is, the origin is in the left upper corner of the page). The default units are millimeters. Like the values for the **-crop** option, the shifts are specified in the output space context.

Extra spaces and blank lines are allowed. Unrecognized attributes and their values are ignored. See the sample file **shift.sample**.

If the image is moved left or up, part of the bitmap is removed. If the image is moved down or right, removal is governed by the value of the **[Page_Offset_Type]** attribute. If **crop** is chosen, the transform removes the requisite amount from the right and bottom edges of the bitmap. If **grow** is chosen, the transform does not remove any space. The bitmap grows and the trimming, if any, is left to the printer. If the **-fit trim** option (the default) is specified, **[Page_Offset_Type]** defaults to **grow**. For **-fit scale**, **[Page_Offset_Type]** defaults to **crop**.



Specifies the paper length. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. If the unit is dots, decimals (if any) are ignored. The default paper length is 11 inches. See options **-w** to set the paper width or **-paper** to set both dimensions at the same time.



- Specifies the filename for the color conversion lookup table file. Fast and accurate conversion between color spaces can be implemented as a multidimensional lookup with an interpolation algorithm for missing nodes. The file specified with the **-lut** option must contain a valid lookup table for the conversion between the input and output color spaces. The lookup tables currently come in either ASCII (.lut) or binary formats (.lutbin).

If the optional colorspace tag is not provided, the table is assumed to match the input image. If there is a serious mismatch between the table and the image (for example, the table is RGB to CMYK and the input image is CMYK), the **-lut** is ignored for the image. Otherwise, it is used to convert the colors and any mismatch (for example, using a **lab** table for **rgb** data) results in corrupted output.

If the colorspace tag is provided, the transform uses the lookup table only for the relevant colorspace image. Multiple **lut** tables can be specified if you are unsure of the input colorspace. If the **lut** files are binary, parsing extra files does not impose much of a performance penalty.

Example:

```
-lut 3170-005.rgb.cmyk.perceptual.lutbin,rgb
```

Where 3170-005 is the model-type; rgb.cmyk is for RGB images; and perceptual is the **color-rendering-intent** value.

With InfoPrint Manager for AIX, filenames are listed in /usr/lpp/psf/config; and with InfoPrint Manager for Windows, filenames are listed in *install_path*\config.



Limits the amount of memory available to **jpeg2afp**. *nnn* is the maximum amount of memory in kilobytes. A value of **0** means there is no memory limit. *nnn* can be set from **0** to the maximum value that AIX allows. The default is **0**.



Requires that at least *nnn* kilobytes of disk space be available on the file system that contains the output file. This limit is enforced every time data is written to the output file. If the output is standard output, this option is ignored. The default is **10**. See option **-msf**.



The number *x.xxx* is a real number between 0 and 1. It denotes the minimum space that must be left unused on the file system containing the output file. The space is given as a fraction of the total space in the file system. This limit is enforced every time data is written to the output file. If the output is standard output, this option is ignored. The default is **0.1**. See option **-ms**.



See **term** or **noterm**.



See **v** or **nov**.



Optional output file name. Specify - for standard output.



- Specifies an output color resource. The color resource can be either an ICC Profile or a Color Management Resource (CMR). If you specify two or more **-ocmr** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies how the output AFP will be tagged with color information. The allowed values are:

none There will be no tagging in the output AFP.

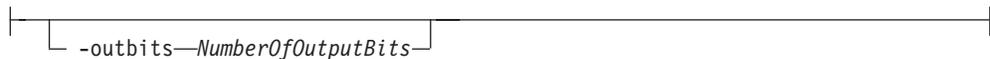
normal

InfoPrint will use the specified **-ocmr** value to tag the output AFP as an input (audit) Color Management Resource (CMR).

passthru

InfoPrint will use the specified **-ocmr** value to tag the output AFP as both an input (audit) CMR and an output (instruction) CMR.

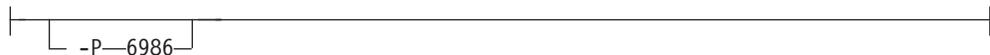
If you specify two or more **-otag** flags on a transform command line, InfoPrint will use the last specified value.



Sets the number of bits per pel in output. This value must be **1**, **4**, **8**, or **24**. If the output image type is IOCA FS10 or IM1, the number of output bits is set to **1** and this option is ignored. For IOCA FS11 output, the default is **24**. This number represents the maximum number of bits used per pel. Thus, even if the number of bits is set to **24**, a 4-bit grayscale image is still displayed in 4-bit format.



Sets the output color model to RGB, YCbCr, or YCrCb if the image type is IOCA FS11 and the number of output bits is 24. Otherwise, this option is ignored. The default is **ycbcr**.



- Specifies the port number **jpeg2afp** uses to make a connection with the Transform Manager (set by the **-S** flag). When the **-S** flag is not specified or the **-S** flag specifies **none**, the **-P** flag is ignored.

6986 The port number if InfoPrint Manager is connected to Transform Manager.

Note: To find out which ports are already being used on your system (although they might or might not be active), look in the **/etc/services** file.



- Specifies that the output should only contain the specified pages. If no **-p** option is given, all the pages are output. Multiple **-p** options can be specified. Their effect is cumulative. Regardless of the order in which the pages are specified, they are always printed in ascending order. The recognized values are:

even Print all even pages

odd Print all odd pages

nn Print page *nn*

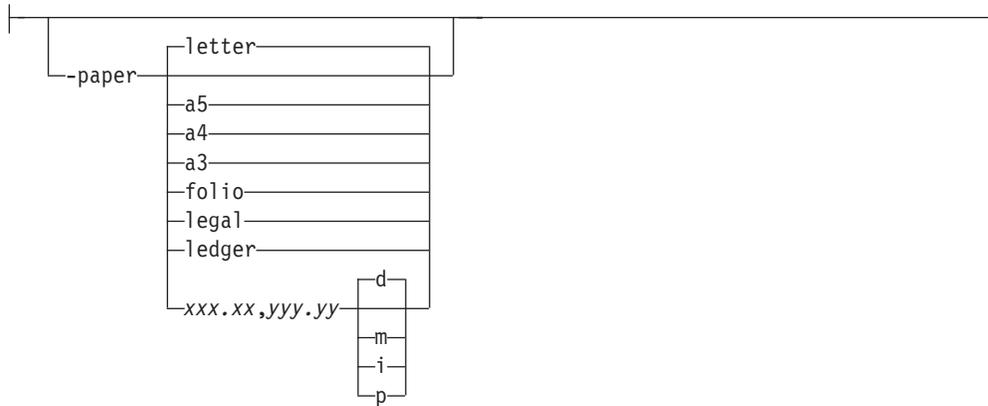
nn-mm Print pages *nn* to *mm*, inclusive.

nn- Print all pages starting with page *nn*

Pages are numbered starting with 1.



Sets the output page type to be page, overlay, page segment or object. The same page type is set for every page in the output. Thus, unless option **-p** is used to select a single page, multiple page segments or overlays are stored in the output file. The default is **page**. See option **-a**.



- Specifies the output paper size. The supported values are:
 - a3** A3 format (297 by 420 mm or 11.69 by 16.54 inches)
 - a4** A4 format (210 by 297 mm or 8.27 by 11.69 inches)
 - a5** A5 format (148 by 210 mm or 5.83 by 8.27 inches)
 - letter** 8.5 by 11 inches (216 by 279 mm)
 - folio** 8.5 by 13.0 inches (216 by 330 mm)
 - legal** 8.5 by 14.0 inches (216 by 356 mm)
 - ledger** 11.0 by 17.0 inches (279 by 432 mm)

xxx.xx,yyy.yy

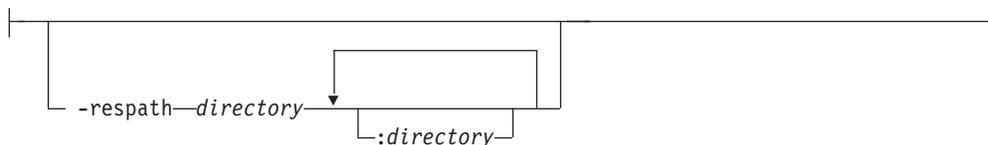
Horizontal and vertical page dimensions. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**.

The default paper size is letter. If **-paper** is not used, the paper size is increased, if necessary, to contain the output image.

See options **-l**, **-w**, and **-scale**.



- The output device resolution, specified in dots per inch. The default is **600**. This option is equivalent to the **default-printer-resolution** document attribute on the **pdpr** command.



Sets the search path for resource files, such as the scan offset files and grayscale calibration curve files. If a resource file name is specified as a relative name (does not start with a `/`), the transform searches every directory in the path, in the order specified in the path, until it finds the file (or fails). See options **-j** and **-gcorr** for scan offsets and grayscale calibration curve. The default is the current directory.



- The image is rotated in the clockwise direction by the amount specified. The default is zero, that is, no rotation.

If **p** is specified, the transform sets the output data stream in such a way that the printer performs the actual image rotation. If **i** is specified, the transform rotates the output bitmap. When **i** is chosen, the transform takes much longer to run and uses much more memory. If no letter is specified, the default or any previous value (such as the value specified in the configuration file) remains in force. The default is **p**.



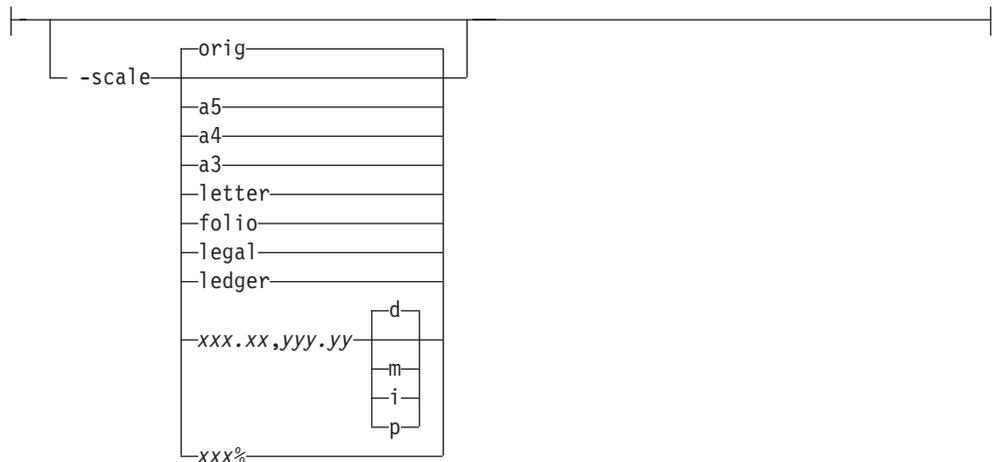
Specifies the name of the system on which the Transform Manager is running. The value is:

ServerName

Any valid workstation name on which the Transform Manager is installed and running. The name is defined in the `/etc/hosts` file or by a name server, and can be a nickname like **molly**, or a dotted decimal address like **9.99.9.23**.

none Processes the **jpeg2afp** transform locally.

Note: When the **-S** flag is not specified or the **-S** flag specifies **none**, the **-P** flag is ignored.



- Specifies the output image size. The image is scaled to this size and centered in the area defined by the paper size and margin options. The supported values are:

orig Preserve the input image size, regardless of the printable paper area.

- a3** A3 format (297 by 420 mm or 11.69 by 16.54 inches)
- a4** A4 format (210 by 297 mm or 8.27 by 11.69 inches)
- a5** A5 format (148 by 210 mm or 5.83 by 8.27 inches)
- letter** 8.5 by 11 inches (216 by 279 mm)
- folio** 8.5 by 13.0 inches (216 by 330 mm)
- legal** 8.5 by 14.0 inches (216 by 356 mm)
- ledger** 11.0 by 17.0 inches (279 by 432 mm)

xxx.xx,yyy.yy

Horizontal and vertical page dimensions. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**.

xxx% Magnification relative to the original image size. Numbers below 100% mean reduction, while Numbers above 100% mean enlargement. For example, **-scale 200%** causes the output image to be twice as long and twice as wide as the input image.

The default image size is **orig**.

`-sgcorr—FileName—`

- Specifies the name of the scanner-related calibration file. To use this option in the calibration process (with the option **-calib**) you must specify a single file name. If **-calib** is absent, this option is ignored.

A detailed description of **-sgcorr** is beyond the scope of this document.

`-noterm`
`-term`

- Disables (**-term**) or enables (**-noterm**) error recovery.
 - When error recovery is disabled, on encountering an error in a JPEG file, the transform terminates with an error message and a nonzero return code.
 - When error recovery is enabled, the errors in JPEG files are treated as non-fatal. The transform tries to recover with the next file. The return code is zero.

The default is **-noterm**.

`-thresh—FileName—`

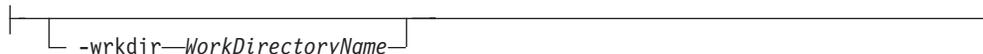
Specifies a file that contains a PostScript Type 1 or Type 3 halftone dictionary. Alternatively, the PostScript code can specify the **setscreen** operator instead of a Type 1 dictionary. The halftone cell in the dictionary is used to overwrite the default ordered dither clustered dot halftone cell. If the PostScript code contains a transfer function, either in the halftone dictionary or specified by the **settransfer** operator, the current grayscale correction curve is overwritten as if **-gcorr** were used.



- Turns verbose mode on (-v) or off (-nov).
 - When verbose mode is on, the transform prints a message as it opens each resource file, then echoes the command line, then prints a message for each file name as it is processed.
 - When verbose mode is off, the transform prints only error messages.
 The default is **-nov**.



Specifies the paper width. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. The default page width is 8.5 inches. See options **-l** to set the paper length or **-paper** to set both dimensions at the same time.



- Input to **jpeg2afp** from **stdin** must be cached on disk before it can be processed. This option specifies which directory to use for the caching of the standard input. If this option is absent or the directory cannot be opened, the transform first tries to use **/var/psf/jpeg2afp** as the working directory, and if **/var/psf/jpeg2afp** is absent, uses **/tmp**.
The **stdin** cache file is never visible to you because it is immediately unlinked after creation. Thus, the cache file is always deleted when **jpeg2afp** finishes execution, even if **jpeg2afp** is killed or otherwise terminates in error.



Specifies the left margin. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. The default is zero (no margin).



Specifies the top margin. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. The default is zero (no margin).

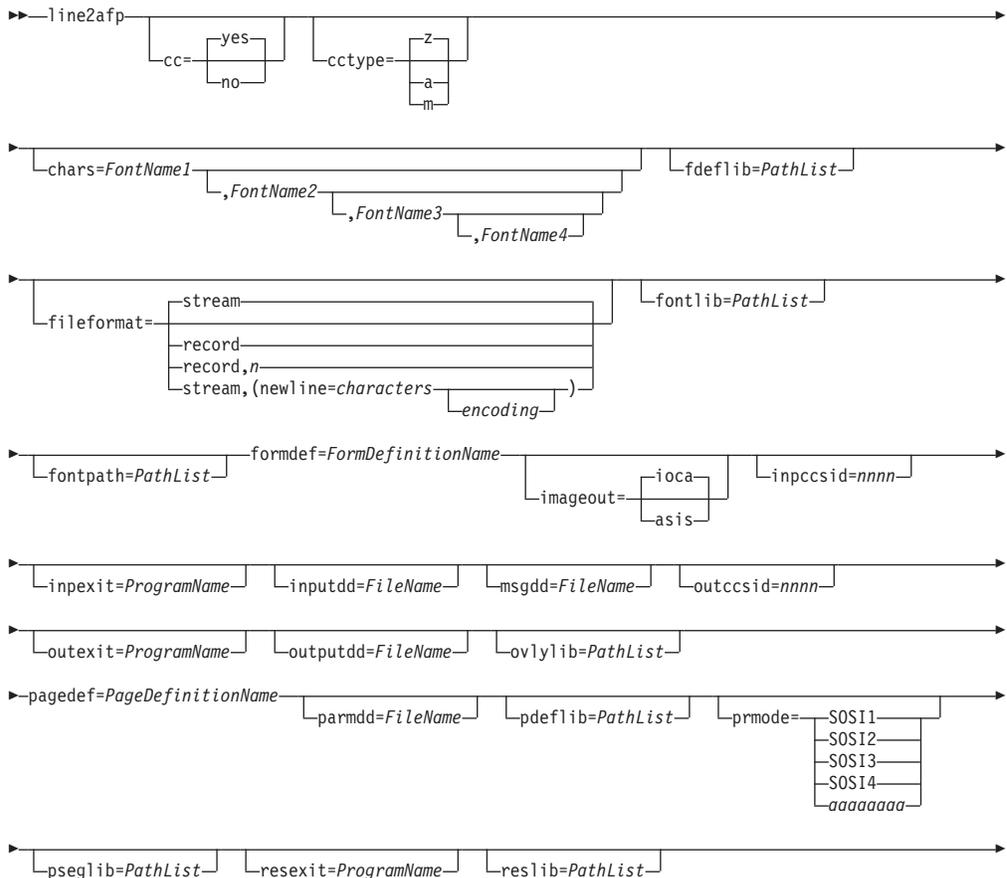


Signifies that a list of files to be processed is submitted from standard input. See also options `-f` and `@`.

line2afp command: transforms traditional line data and ASCII data to AFP

Syntax

line2afp command



- With InfoPrint Manager for AIX, though the options themselves are not case-sensitive, associated values, such as file names, attribute names, and directory names *are* case-sensitive. For example,

```
formdef=F1MINE
```

is *not* the same as

```
formdef=f1mine
```

Be sure to specify these values in the case in which they exist in the file system (for external resources) or in the print file (for inline resources).

- If the same option is specified more than one time, the **line2afp** command uses the last value specified. For example, if you specify:

```
pagedef=P1MINE
```

```
pagedef=P1YOURS
```

the **line2afp** command uses page definition **P1YOURS** only.

Description

The **line2afp** command transforms traditional line data, mixed-mode data, and ASCII files into the AFP (MO:DCA-P) data stream, so that you can print the file on an InfoPrint printer.

When you use the **line2afp** command to convert traditional line data or ASCII data, you must specify a page definition (**pagedef** option). If the page definition names fonts, InfoPrint uses those fonts. If the page definition does not name any fonts, and if you want the file to print with more than one font, the input file must contain table reference characters (TRCs), and you must:

- Specify **trc=yes**.
- Use **chars** to indicate the fonts to be associated with each TRC.

If the page definition does not specify fonts, and you have not specified any TRCs, your job will print, although the output might not be formatted correctly.

If the page definition does not name any fonts, and you want the whole file to print with one font, then you must:

- Specify **trc=no**.
- Use **chars** to indicate the single fonts in which the file should be printed.

If the page definition does not specify fonts, and you have not specified any TRCs, your job will print, although the output might not be formatted correctly.

The **line2afp** command searches for resources in this order:

1. Inline resources.
2. Resource Access Table (RAT) entries in any directory specified by the **userpath** option (TrueType and OpenType fonts, color management resources (CMRs), and data object resources (DORs); see **Note** at the end of this list).
3. File names matching the object name in paths specified by the **userlib** option (AFP resources, except TrueType and OpenType fonts).
4. RAT entries in these system paths:
 - a. Paths specified by the **objconlib** option.
 - b. Paths specified by the **thereslib** option.
5. File names matching the object name in these system paths:
 - a. Paths specified by the **objconlib** option.
 - b. Paths specified by the **reslib** option.

- c. Paths specified by the **psfpath** environment variable.
- d. With AIX: /usr/lpp/psf/reslib
- e. With Windows, where *install_path* indicates the path where you installed InfoPrint Manager for Windows:
 - 1) *install_path*\reslib
 - 2) *install_path*\ipfonts
 - 3) *install_path*\afpfonts
 - 4) *install_path*\fontlib

Note: The paths specified by **userpath** and **fontpath** must be the same paths where the AFP Resource Installer installed CMRs, DORs, and TrueType and OpenType fonts. The AFP Resource Installer (Program Number 5639-EE2) is available from your InfoPrint Solutions Company representative. For more information about TrueType and OpenType fonts, see *Using OpenType Fonts in an AFP System*.

When the **line2afp** command finds more than one resource with the same name in the same directory, it selects the resource to be used depending on the file extension. Table 12 shows the order in which resources with the same name but different file extensions are used by **line2afp**.

Table 12. File extensions for resources

<i>Type of Resource</i>	<i>File Extensions Searched (see note)</i>
BCOCA™ (bar code) objects	1. No file extension 2. OBJ 3. OBJECT
Code pages	1. ECP 2. No file extension 3. FONT3820 4. FONT38PP 5. CDP 6. FONT300
Coded fonts	1. No file extension 2. FONT3820 3. FONT38PP 4. CFT 5. FONT300
Font character sets, 240-pel resolution	1. No file extension 2. 240 3. FONT3820 4. FONT38PP 5. CFT 6. CDP
Font character sets, 300-pel resolution	1. No file extension 2. 300 3. FONT300 4. CFT 5. CDP

Table 12. File extensions for resources (continued)

<i>Type of Resource</i>	<i>File Extensions Searched (see note)</i>
Outline fonts	<ol style="list-style-type: none"> 1. No file extension 2. OLN 3. FONTOLN 4. CFT 5. CDP
TrueType and OpenType fonts, CMRs, and data object resources	Entire file name, including extension; comes from the Resources Access Tables (RATs) created by the AFP Resource Installer. If a CMR or a data object RAT is altered, PSF must be restarted for the changes to take effect.
Form definitions	<ol style="list-style-type: none"> 1. No file extension 2. FDEF3820 3. FDEF38PP 4. FDE 5. FIL
GOCA (graphics) objects	<ol style="list-style-type: none"> 1. No file extension 2. OBJ 3. OBJECT
IOCA (IO image) objects	<ol style="list-style-type: none"> 1. No file extension 2. OBJ 3. OBJECT
MO:DCA Objects	<ol style="list-style-type: none"> 1. No file extension 2. OBJ 3. OBJECT
Overlays	<ol style="list-style-type: none"> 1. No file extension 2. OVL3820 3. OVL38PP 4. OVL 5. OLY 6. OVR
Page definitions	<ol style="list-style-type: none"> 1. No file extension 2. PDEF3820 3. PDEF38PP 4. PDE
Page segments	<ol style="list-style-type: none"> 1. No file extension 2. PSEG3820 3. PSEG38PP 4. PSG 5. PSE
Color mapping table	<ol style="list-style-type: none"> 1. No file extension 2. SETUP 3. SET

Table 12. File extensions for resources (continued)

Type of Resource	File Extensions Searched (see note)
Presentation object container For data object resources not installed in a Resource Access Table (RAT).	1. No file extension 2. DOR
Setup data	1. No file extension 2. SETUP 3. SET 4. COMSETUP
Note: All file extensions must be in uppercase.	

Note: If a file name includes a period (.), the file extension is that part of the file name that follows the period. For example, the file extension of the file name **ARTWORK.PSEG3820** is **PSEG3820**.

The PSF DSS invokes **line2afp** whenever you submit a line-data or unformatted ASCII job. You can specify **document-format=line-data** or **document-format=ascii** on the **pdpr** command, or **-odatatype=line** or **-odatatype=ascii** on an AIX print command or the **lprafp** command, or you can allow InfoPrint to identify the data type.

For more information about the **line2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Processing resources installed with Resource Access Tables

A RAT maps a resource name specified in the MO:DCA-P data stream to information used to find and process the resource. The resources that are installed with a RAT include:

- TrueType and OpenType fonts
- Color management resources (CMRs)
- Data object resources

In order for **line2afp** to process resources installed with a RAT, you must:

1. Use the InfoPrint AFP Resource Installer or a similar product to install the resources and create RATs in the appropriate resource directories on your system.
2. When invoking **line2afp**, use these parameters on AIX and Windows systems to specify the path names where the RATs and resources are installed in:

Parameter	Resource Type
FONTPATH	TrueType and OpenType fonts
OBJCONDDD, RESLIB, and USERLIB	Object containers and CMRs
USERPATH	Any RAT-installed resource

3. Modify your application to include the RAT-installed resources in a page definition, form definition, or Map Data Resource (MDR) structured field. See *InfoPrint Page Printer Formatting Aid for Windows: User's Guide, S550-0801*, for

more information about including resources. You can use the RESTYPE parameter with **line2afp** to control what type of resources are included in the resource type.

Automatic invocation

The PSF DSS automatically invokes the **line2afp** transform command whenever you submit line data for printing. You can pass options to **line2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **line2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **imageout=asis**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**.

Flags and values

You can specify many of these flags and values with the **other-transform-options** attribute on the **pdpr** command or with the **enq -o**, **lp -o**, **qprt -o**, or **lprafp -o** command.

See “pdpr command: submits jobs” on page 90 and “Attributes for documents and default documents” on page 686 or “The -o flag for AIX print commands and the InfoPrint Manager lprafp command” on page 140 for more information.



- Specifies whether the input file has carriage-control characters.

Values are:

yes The file contains carriage-control characters. **yes** is the default.

no The file does not contain carriage-control characters.

Carriage-control characters, if present, are located in the first byte (column) of each line in a document. They are used to control how the line will be formatted (single space, double space, triple space, and so forth). In addition, other carriage-controls can be used to position the line anywhere on the page. If there are no carriage-controls, single spacing is assumed.

This option and the **cctype** option, used together, are equivalent to the document attribute **carriage-control-type** on the **pdpr** command.



- Specifies the type of carriage-control characters in the input file. The **line2afp** command supports ANSI carriage-control characters in either ASCII or EBCDIC encoding, as well as machine carriage-control characters. The **line2afp** command does not allow a mixture of ANSI and machine carriage-control characters in a file. Values are:

If you specify **cc=yes** but you do not specify **cctype**, the **line2afp** command assumes that the file contains ANSI carriage-control characters encoded in ASCII.

If you are not sure which type of carriage-control characters are in your input file, consult your system support group.

This option and the **cc** option, used together, are equivalent to the document attribute **carriage-control-type** on the **pdpr** command.

z The file contains ANSI carriage-control characters that are encoded in ASCII. **z** is the default.

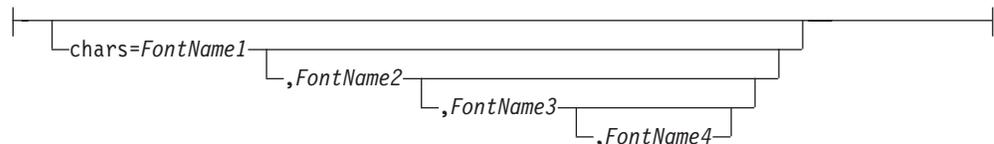
The carriage-control characters are the ASCII hexadecimal values that directly relate to ANSI carriage-controls, which cause the action of the carriage-control character to occur *before* the line is printed. For example, if the carriage-control character is zero (X'30'), which represents double spacing, double spacing will occur *before* the line is printed.

a The file contains ANSI carriage-control characters that are encoded in EBCDIC.

The use of ANSI carriage-control characters cause the action of the carriage-control character to occur *before* the line of data is printed. For example, if the carriage-control character is a zero (X'F0'), which represents double spacing, the double spacing will occur *before* the line is printed.

m The file contains machine code carriage-control characters that are encoded in hexadecimal format.

The use of machine code carriage-control characters cause the action of the carriage-control character to occur *after* the line of data is printed. For example, if the carriage-control character is a X'11', which represents double spacing, the line will be printed and the double spacing will occur *after* the line is printed. In addition, machine code carriage-control has a set of carriage-control characters that do the action, but do not print the associated line.



- Specifies the file name of from one to four coded fonts to be used in processing the print file. A coded font specifies a character set and code page pair.

Note: **chars** is ignored when **fontpath** or **userpath** are specified.

The value is:



The name of the desired coded font. The font name is limited to 4 alphanumeric or national characters, and should not include the 2-character prefix of the coded-font name (X0 through XG). With InfoPrint Manager for AIX, the font name is case-sensitive.

With InfoPrint Manager for AIX, if you use the ASCII fonts that are supplied with InfoPrint, use the 4-character names. If you use your own coded font that has a file name with more than 6 characters (including the *Xn* prefix), do one of these actions:

- Rename the font file to a shorter name. For example,
`mv X0423002 X04202`
- Copy the font file to a file that has a shorter name. For example,
`cp X0423002 X04202`
- Link the original font file to a shorter name. For example,
`ln -s X0423002 X04202`

With InfoPrint Manager for Windows, if you use the ASCII fonts that are supplied with InfoPrint, use the 4-character names. If you use your own coded font that has a file name with more than 6 characters (including the *Xn* prefix), do one of these actions:

- Rename the font file to a shorter name. For example,
`rename X0423002 X04202`
- Copy the font file to a file that has a shorter name. For example,
`copy X0423002 X04202`

When you use the **line2afp** command to convert S/370 line-mode data or unformatted ASCII data, you must specify a page definition (**pagedef** option). If the page definition names some fonts, the **line2afp** command uses those fonts, and ignores the **chars** option. If the page definition does not name any fonts (like the sample page definitions supplied with InfoPrint), and if you want the file to print with more than one font, the input file must contain table reference characters, and you must:

- Specify **trc=yes**.
- Use **chars** to indicate the fonts to be associated with each table reference character (TRC). *Fontname1* is associated with TRC 0, *FontName2* is associated with TRC 1, and so on.

If the page definition does not name any fonts, and you want the whole file to print with only one font, the input file must not contain table reference characters and you must:

- Specify **trc=no**.
- Use **chars** to indicate the single font in which the file should be printed.

Consider these situations when specifying fonts with the **chars** option:

- If your input file is unformatted ASCII, you can do one of these actions:
 - Specify a font that has the appropriate ASCII code points. To specify a font search path, either use the **fontlib** option to specify it explicitly, or set the **PSFPATH** environment variable to search the appropriate directories. See the InfoPrint Solutions Company Information Center at <http://publib.boulder.ibm.com/infocenter/printer/index.jsp> for more information about ASCII fonts.
 - Use the **apka2e** or **asciinpe** input record exit programs to convert the ASCII code points in the input file into EBCDIC, and use EBCDIC fonts. To do this, use the **inpexit** option, specifying:

For AIX

```
inpexit=/usr/lpp/psf/bin/apka2e
```

For Windows

```
inpexit=c:\Program Files\IBM\InfoPrint Manager\bin\apka2e
```

where this path assumes you installed into the default path.

If the ASCII input file contains form feeds or carriage returns, specify:

For AIX

```
inpexit=/usr/lpp/psf/bin/asciipe
```

For Windows

```
inpexit=c:\Program Files\IBM\InfoPrint Manager\bin\asciipe
```

where this path assumes you installed into the default path.

- You can specify fonts with the **chars** option only if you want the entire file printed in a single printing direction. The **line2afp** command uses the fonts that have 0-degree character rotation for the specified direction. When a file requires fonts with more than one print direction or character rotation, you must specify the fonts in the page definition.
- You can specify from one to four fonts with the **chars** option. If you specify more than one font with the **chars** option, the input file must contain table reference characters, and you must specify **trc=yes**.
- If you use **chars** to specify fonts, but you also use the **pagedef** option to specify a page definition that names fonts, the **chars** option is ignored. Therefore, if your page definition names fonts, you should not use **chars**.
- If you do not specify a **chars** option, and if no fonts are contained in the page definition you specified, the **line2afp** command uses the default font that is set in the printer's hardware.

This option is equivalent to the document attribute **chars** on the **pdpr** command.

```
|-----|  
|_fdeflib=PathList_|
```

- Specifies the directories in which form definitions are stored. The value is:

```
|-----|  
|_PathList_|
```

- Any valid search path. The **line2afp** command searches the paths in the order in which they are specified.

With AIX, you must use a colon (:) to separate multiple paths.

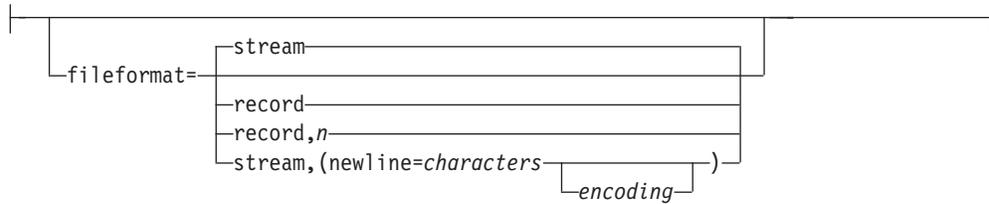
With Windows, you must use a semi-colon (;) to separate multiple paths.

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by piping **line2afp**'s output to an AIX print command or to the **pdpr** command, you should specify the same form definition search path on both sides of the pipe, unless you are sure that the same form definition will be found by **line2afp** and InfoPrint using each program's default search path.

With InfoPrint Manager for AIX, for traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by specifying **-odatatype=line** with an AIX print command, you must specify the form definition search path with **-orespath** instead of **fdeflib**. For example:

```
enq -odatatype=line -oformdef=myfd -opagedef=mypdef  
-orespath=/home/greg/resources -Pprinter myfile
```

This option is equivalent to the document attribute **resource-context-form-definition** on the **pdpr** command.



- Specifies the format of the input file. If you do not specify **fileformat**, the **line2afp** command uses **stream** as the default.

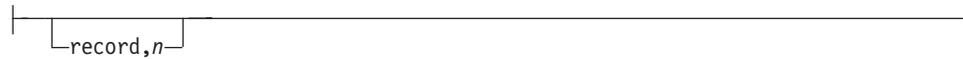
For information about how to specify the correct file format and how to transfer files to ACIF from AIX and Windows, see the appendix entitled “Helpful Hints” in the *AFP Conversion and Indexing Facility: User’s Guide*, S544-5285.

The **fileformat** option does not apply to input files that are resources. Resource files are in MO:DCA-P or AFP data stream format, and the **line2afp** command automatically determines that the file is a resource.

Values are:



The input file is formatted in S/390 record format, where the first two bytes of each line specify the length of the line. Files with **record** format typically are z/OS or VM files that have a variable record format and are downloaded to AIX or Windows using MVS Download or are NFS-mounted.



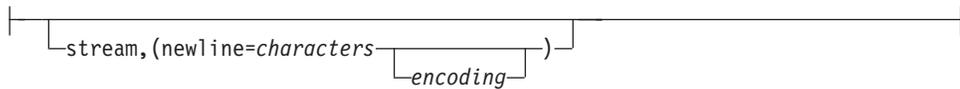
The input file is formatted in such a way that each record (including AFP data stream and MO:DCA-P records) is a fixed length, *n* bytes long. The value of *n* is a number from 1 to 32767. The encapsulated size of the AFP structured field must be less than or equal to the size of *n*. Files with **record,n** format typically are z/OS or VM files that have a fixed record format and are downloaded to AIX or Windows.



- The input file has no length information; it is a stream of data separated by one or more newline characters. The AFP portion (if any) of the input file has its length information encapsulated in the structured field. Files with **stream** format typically come from a workstation operating system, such as AIX or Windows.

If **newline** is not specified, the **line2afp** command examines the first six bytes of the first line data record of the input file, to determine whether the input file is ASCII or EBCDIC. If **line2afp** determines that the input file is ASCII, **line2afp** looks for ASCII newline characters (X'0A') to delimit the end of a record. If **line2afp** determines that the input file is EBCDIC, **line2afp** looks for EBCDIC newline characters (X'25') to delimit the end of a record. The **line2afp** command does not include newline characters in the MO:DCA-P data stream that **line2afp** produces.

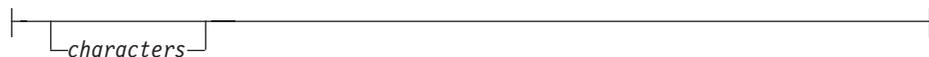
stream is the default.



- Use **newline** to specify the characters and optional encoding used for determining line breaks in the input data. You can use **newline** when **line2afp**'s algorithm cannot determine the correct newline character (if blanks are at the beginning of the file, for example). Or you can use **newline** if you want to specify a newline character that is not the standard default. For example, you could use **newline** as follows:

```
fileformat=stream, (newline=X'0D')
```

If **newline** is not specified, **line2afp** uses the algorithm specified under **fileformat=stream** to determine the end of the record.



Specify one of the keywords **cr**, **lf**, or **crlf** or specify a string of one, two, or four hexadecimal characters.



Specify encoding as **ASCII**, **EBCDIC**, **UTF16**, or **UTF8**. **encoding** is only valid if **newline** is specified with **characters**.

This table shows the hexadecimal strings used by **line2afp** for the delimiter characters when **encoding** is specified. **line2afp** also checks for a BOM (Byte Order Mark) character and reverses the bytes in the delimiter characters for UTF16 little endian data if the BOM is present.

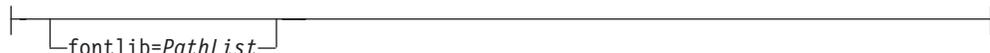
Note: **line2afp** only checks for the BOM if a UDTYPE of UTF16 is specified on the **PAGEDEF** command.

Encoding Parameter	Carriage Return (CR)	Line Feed (LF)	CRLF
ASCII	X'0D'	X'0A'	X'0D0A'
EBCDIC	X'0D'	X'25'	X'0D25'
UTF8	X'0D'	X'0A'	X'0D0A'
UTF16 (with big endian data)	X'000D'	X'000A'	X'000D 000A'
UTF16 (with little endian data)	X'0D00'	X'0A00'	X'0D00 0A00'

For example, you could use **newline** as follows:

```
fileformat=stream, (newline=x'0D')
fileformat=stream, (newline=x'01020304')
fileformat=stream, (newline=crLf, utf16)
```

This option is equivalent to the document attribute **new-line-options-data-encoding** on the **pdenq** or **lpr** command.



- Specifies the directories in which fonts are stored.

The value is:

```
|-----|
|_PathList_
```

- Any valid search path. The **line2afp** command searches the paths in the order in which they are specified.

With AIX, you must use a colon (:) to separate multiple paths.

With Windows, you must use a semi-colon (;) to separate multiple paths.

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by piping **line2afp**'s output to an AIX print command or the **pdpr** command, you should specify the same font search path on both sides of the pipe, unless you are sure that the same fonts will be found by **line2afp** and InfoPrint using each program's default search path.

With InfoPrint Manager for AIX, for traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by specifying **-odatatype=line** with an AIX print command, you must specify the font search path (if any) with **-osrchfontlib** instead of **fontlib**, as shown in this example:

```
enq -odatatype=line -osrchfontlib=/home/greg/resources
    -oformdef=myfdef -opagedef=mypdef -Pprinter myfile
```

Note: If the input file is ASCII data that you want to format with a page definition, you can do one of these actions:

- Specify a font that has the appropriate ASCII code points. To specify a font search path, either use the **fontlib** option to specify it explicitly, or set the **PSFPATH** environment variable to search the appropriate directories.
- Use the **apka2e** or **asciinpe** input record exit to convert the ASCII code points in the input file into EBCDIC, and use EBCDIC fonts. To do this, use the **inpexit** option, specifying:

For AIX

```
inpexit=/usr/lpp/psf/bin/apka2e
```

For Windows

```
inpexit=c:\Program Files\IBM\InfoPrint Manager\bin\apka2e
```

where this path assumes you installed into the default path.

or

For AIX

```
inpexit=/usr/lpp/psf/bin/asciinpe
```

For Windows

```
inpexit=c:\Program Files\IBM\InfoPrint Manager\bin\asciinpe
```

where this path assumes you installed into the default path.

This option is equivalent to the document attribute **resource-context-font** on the **pdpr** command.

```
|-----|
|_fontpath=PathList_
```

- Specifies the system font path library directories in which TrueType and OpenType fonts are stored. TrueType and OpenType fonts are Unicode-enabled AFP fonts that are not defined by the IBM Font Object Content Architecture (FOCA). The value is:

|-----|
 | *PathList* |

- Any valid search path. You must use a colon (:) in AIX and a semicolon (;) in Windows.

```
line2afp inputdd=INFILE outputdd=OUTFILE pagedef=PAGTRUE formdef=F1A10110 \  
fontpath=(' /u/fonts/truetype:/u/fonts/truetype/local')
```

Note: The backslash (\) tells AIX to continue reading the command from the next line. In Windows, the backslash is not valid; therefore, the command parameters must be on one continuous line.

The **line2afp** transform searches the paths in the order in which they are specified.

|-----|
 | *formdef=FormDefinitionName* |

- Specifies the file name of the form definition. A form definition defines how a page of data is placed on a form, the number of copies of a page, any modifications to that group of copies, the paper source, and duplexing. The form definition is actually used at print time, not at transform time.

The value is:

|-----|
 | *FormDefinitionName* |

- Any valid form definition file name. The *FormDefinitionName* can be 1 to 8 alphanumeric or national characters, including the two-character prefix, if there is one. For AIX, the *FormDefinitionName* is case-sensitive.

Note: If the file name of the form definition includes a file extension, do not use the file extension when specifying the form definition. For example, to use a form definition named **memo.FDEF38PP**, specify **formdef=memo**.

The **line2afp** command requires a form definition in order to process the input file (even though the form definition actually gets used at print time). If you do not specify **formdef=**, or if you specify **formdef=** without a form definition file name, the **line2afp** command will not work.

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by piping **line2afp**'s output to an AIX print command or the **pdpr** command, you should specify the same form definition on both sides of the pipe. If you are using the default form definition for the target printer, you do not need to specify a form definition with the AIX print command or **pdpr** command.

The form definition you use can be located:

- In a directory
- Inline in the file (that is, in the file itself)

If the form definition file is in a directory, use the **userlib** option or **fdeflib** option to specify the path to the file. For example:

For AIX

```
formdef=memo userlib=/usr/afp/resources
```

For Windows

```
formdef=memo userlib=d:\afp\resources
```

or

For AIX

```
formdef=memo fdeflib=/usr/lib/formdefns
```

For Windows

```
formdef=memo fdeflib=d:\lib\formdefns
```

If the form definition is an inline resource, you must:

- Specify **cc=yes** to indicate that the file contains carriage-control characters.
- Specify **formdef=FormDefinitionName**, where *FormDefinitionName* is the name of the inline form definition; or specify **formdef=dummy**.

If you specify **formdef=dummy** but the file does not include an inline form definition, the **line2afp** command looks for the form definition named **dummy**.

If you use **formdef** to specify an inline form definition that is different than the actual form definition used inline, the **line2afp** command looks for the **formdef** value instead of the inline form definition.

An input file can contain multiple form definitions, but only one form definition can be used for printing. If a file contains more than one inline form definition, and you specify **formdef=FormDefinitionName**, **line2afp** uses the first inline form definition named *FormDefinitionName*. If a file contains more than one inline form definition, and you specify **formdef=dummy**, **line2afp** uses the first inline form definition in the input file.

This option is equivalent to the document attribute **form-definition** on the **pdpr** command.



- Specifies the format of the image data produced by the **line2afp** command in the output document.

Values are:



The **line2afp** command produces all image data in the same format that it was in the input file.



The **line2afp** command produces all image data in the Image Object Content Architecture uncompressed format. **ioca** is the default.

This option is similar to the document attribute **image-out-format** on the **pdpr** command.

`inpcsid=nnnn`

Specifies the Coded Character Set ID (CCSID) for the input data that you want to convert. The **inpcsid** parameter can be used by an input exit, such as **apka2e**, to specify the encoding of the input data. The CCSID consists of a numeric character string, such as 1200, that represents any valid CCSID registered by the Character Data Representation Architecture (CDRA). For information about CCSIDs, see the *CDRA Reference and Registry*, SC09-2190.

`inpxit=ProgramName`

- Specifies the name or the full path name of the input record exit program. The **line2afp** command calls this program for every record (every line) it reads from the input file (**inputdd**). If you specify the file name without a path, the **line2afp** command searches for the exit program in the paths specified by the **PATH** environment variable. If you do not specify this option, the **line2afp** command will not use an input record exit program.

The value is:

`ProgramName`

Any valid input record exit program name. With InfoPrint Manager for AIX, the exit program name is case-sensitive.

If the input file is unformatted ASCII, but the fonts you are using contain EBCDIC, not ASCII, code points (for example, you specify **chars=GT15**), you can specify:

With AIX:

/usr/lpp/psf/bin/apka2e

Converts ASCII stream data to EBCDIC⁷ stream data .

/usr/lpp/psf/bin/asciinpe

Converts unformatted ASCII data into a record format that contains an American National Standards Institute (ANSI) carriage control character in byte 0 of every record, and then converts the ASCII stream data to EBCDIC⁷ stream data.

/usr/lpp/psf/bin/asciinp

Converts unformatted ASCII data that contains carriage returns and form feeds into a record format that contains an American National Standards Institute (ANSI) carriage control character. This exit encodes the ANSI carriage control character in byte 0 of every record. You might want to specify the **asciinp** exit program supplied with InfoPrint if your unformatted ASCII file contains carriage returns and form feeds.

/usr/lpp/psf/bin/dbblank

Processes EBCDIC double-byte line data downloaded from the z/OS spool by adding an extra blank to the end of the input record if:

1. The last byte in the record is a blank (x'40' in EBCDIC).
2. The second to the last byte is **not** a blank.

7. The default conversion is from code page 805 to code page 037. You can override the defaults with the **inpcsid** and **outccsid** parameters.

3. The input record is line data; that is, it is not a structured field.

This exit also updates the record length by 1 if the blank is added. The exit has no way of determining if the data is DBCS or not, so this will happen to every input record that ends in a single blank. The exit assumes that the input data is EBCDIC, and that the output data is also EBCDIC. In other words, the exit does **not** do any code page translation, but it simply adds an extra blank if needed.

Notes:

1. This exit is only intended to be used if the spool file consists of double-byte or mixed single- or double-byte data that has blank truncation. Adding a blank to other types of data files could cause formatting errors, depending on how the page definition is coded.
2. This exit only checks for a **single** trailing blank, so if a different number of odd blanks is present in the data, it is up to you to make sure the data is formatted with the correct font.

With Windows:

install_path\exits\acif\apka2e

Converts ASCII stream data to EBCDIC⁷ stream data.

install_path\exits\acif\asciinpe

Converts unformatted ASCII data into a record format that contains an American National Standards Institute (ANSI) carriage control character in byte 0 of every record, and then converts the ASCII stream data to EBCDIC⁷ stream data.

install_path\exits\acif\asciinp

Converts unformatted ASCII data that contains carriage returns and form feeds into a record format that contains an American National Standards Institute (ANSI) carriage control character. This exit encodes the ANSI carriage control character in byte 0 of every record. You might want to specify the **asciinp** exit program supplied with InfoPrint if your unformatted ASCII file contains carriage returns and form feeds.

install_path\exits\acif\dbblank

Processes EBCDIC double-byte line data downloaded from the z/OS spool by adding an extra blank to the end of the input record if:

1. The last byte in the record is a blank (x'40' in EBCDIC).
2. The second to the last byte is **not** a blank.
3. The input record is line data; that is, it is not a structured field.

This exit also updates the record length by 1 if the blank is added. The exit has no way of determining if the data is DBCS or not, so this will happen to every input record that ends in a single blank. The exit assumes that the input data is EBCDIC, and that the output data is also EBCDIC. In other words, the exit does **not** do any code page translation, but it simply adds an extra blank if needed.

Notes:

1. This exit is only intended to be used if the spool file consists of double-byte or mixed single- or double-byte data that has blank truncation. Adding a blank to other types of data files could cause formatting errors, depending on how the page definition is coded.
2. This exit only checks for a **single** trailing blank, so if a different number of odd blanks is present in the data, it is up to you to make sure the data is formatted with the correct font.

If your input file uses fonts that have ASCII code points (for example, you specify **chars=H292**, or any of the fonts listed in “IBM AFP Fonts for ASCII Data” in *AFP Conversion and Indexing Facility: User’s Guide, S550-0436*) you should *not* use the **apka2e** or **asciinpe** exit programs.

This option is equivalent to the document attribute **input-exit** on the **pdpr** command.

For a list of the AIX and Windows files shipped with the **line2afp** transform, see “Files” on page 359.

`└inputdd=FileName┘`

- Specifies the full path name of the input file that the **line2afp** command will process. If you do not specify **inputdd**, the **line2afp** command uses standard input.

You cannot use **inputdd=FileName** on the command line with the **enq**, **lp**, **qprt**, or **lprafp** commands, or with the **other-transform-options** attribute on the **pdpr** command. You can only use **inputdd=FileName** with the **line2afp** command.

`└msgdd=FileName┘`

- Specifies the name or the full path name of the file where the **line2afp** command writes error messages. If you specify the file name without a path, the **line2afp** command puts the error file into your current directory. If you do not specify **msgdd**, the **line2afp** command uses standard error for its message output.

This option is equivalent to the document attribute **transform-message-file-name** on the **pdpr** command.

`└outccsid=nnnn┘`

Specifies the Coded Character Set ID (CCSID) for the output data that you want to have converted. The **outccsid** parameter can be used by an input exit, such as **apka2e**, to specify the encoding of the output data. The CCSID consists of a numeric character string, such as 1200, that represents any valid CCSID registered by the Character Data Representation Architecture (CDRA). For information about CCSIDs, see the *CDRA Reference and Registry, SC09-2190*.

`└outexit=ProgramName┘`

- Specifies the name or the full path name of the output record exit program. The **line2afp** command calls this program for every output record (every line) it writes to the output document file (**outputdd**). If you specify the file name without a path, the **line2afp** command searches for the file name in the paths specified by the PATH environment variable. If you do not specify this option, the **line2afp** command will not use an output record exit program.

The value is:

`└ProgramName┘`

Any valid output record exit program name. With InfoPrint Manager for AIX, the exit program name is case-sensitive.

`outputdd=FileName`

- Specifies the name or the full path name of the output document file. If you specify the file name without a path, the **line2afp** command puts the output file into your current directory. If you do not specify **outputdd**, the **line2afp** command writes the output to standard output.

You cannot use **outputdd=FileName** on the command line with the **enq**, **lp**, or **qprt** commands, or with the **other-transform-options** attribute on the **pdpr** command. You can only use **outputdd=FileName** with the **line2afp** command.

This option is equivalent to the document attribute **transform-output-file-name** on the **pdpr** command.

`ovlylib=PathList`

- Specifies the directories in which overlays are stored. The value is:

`PathList`

- Any valid search path. The **line2afp** command searches the paths in the order in which they are specified.

With AIX, you must use a colon (:) to separate multiple paths.

With Windows, you must use a semi-colon (;) to separate multiple paths.

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by piping **line2afp**'s output to an AIX print command or the **pdpr** command, you should specify the same overlay search path on both sides of the pipe, unless you are sure that the same overlays will be found by **line2afp** and InfoPrint using each program's default search path.

InfoPrint Manager for AIX, for traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by specifying **-odatatype=line** with an AIX print command, you must specify the overlay search path with **-orespath** instead of **ovlylib**. For example:

```
enq -odatatype=line -oforndef=myfd -opagedef=mypd  
-orespath=/home/greg/resources -Pprinter myfile
```

This option is equivalent to the document attribute **resource-context-overlay** on the **pdpr** command.

`pagedef=PageDefinitionName`

- Specifies the file name of the page definition. A page definition defines the page format that the **line2afp** command uses to compose the input file into pages. The page definition is actually used at transform time, not at print time.

The value is:

`PageDefinitionName`

- Any valid page definition file name. The *PageDefinitionName* can be 1 to 8 alphanumeric or national characters, including the two-character prefix, if there is one. With AIX, the **pdefname** is case-sensitive.

Note: If the file name of the page definition includes a file extension, do not use the file extension when specifying the page definition. For example, to use a page definition named **memo.PDEF38PP**, specify **pagedef=memo**.

The **line2afp** command requires a page definition in order to process the input file. If you do not specify **pagedef=**, or if you specify **pagedef=** without a page definition file name, the **line2afp** command will not work.

The page definition you use can be located:

- In a directory
- Inline in the file (that is, in the file itself)

If the page definition file is in a directory, use the **userlib** option or **pdeflib** option to specify the path to the file. For example:

For AIX

```
pagedef=memo userlib=/usr/afp/resource
```

For Windows

```
pagedef=memo userlib=d:\afp\resource
```

or

For AIX

```
pagedef=memo pdeflib=/usr/lib/pagedefns
```

For Windows

```
pagedef=memo pdeflib=d:\lib\pagedefns
```

If the page definition is an inline resource, you must:

- Specify **cc=yes** to indicate that the file contains carriage-control characters.
- Specify **pagedef=PageDefinitionName**, where *PageDefinitionName* is the name of the inline page definition; or specify **pagedef=dummy**.

If you specify **pagedef=dummy** but the file does not include an inline page definition, the **line2afp** command looks for the page definition named **dummy**.

If you use **pagedef** to specify an inline page definition that is different than the actual page definition used inline, the **line2afp** command looks for the **pagedef** value instead of the inline page definition.

An input file can contain multiple page definitions, but only one page definition can be used by the **line2afp** command. If a file contains more than one inline page definition, and you specify **pagedef=PageDefinitionName**, **line2afp** uses the first inline page definition named *PageDefinitionName*. If a file contains more than one inline page definition, and you specify **pagedef=dummy**, the **line2afp** command uses the first inline page definition in the input file.

This option is equivalent to the document attribute **page-definition** on the **pdpr** command.



- Specifies the name or the full path name of a file that contains the **line2afp** options and their values. If you specify the file name without a path, the **line2afp** command searches for the file name in your current directory.

You might find it convenient to put the **line2afp** options and values into a file, so that you do not have to type all of them on the command line whenever you use **line2afp**.

Values are:

```
|-----|  
|_FileName_
```

The name of the file containing **line2afp** command options and values.

Notes:

1. The beginning delimiter for comments is `"/*`. For example:

```
formdef=F1TEMP /* Temporary formdef  
formdef=F1PROD /* Production-level formdef
```

Comments can appear anywhere, but the **line2afp** command ignores all information in the line following the `"/*` character string.

2. Each option must be on a separate line. For example:

```
chars=GT10 cctype=a /* This is NOT allowed.
```

3. If the option file contains the name of the input file (**inputdd=FileName**), you cannot specify the option file with an AIX print command's **-o** flag or with the **other-transform-options** attribute on the **pdpr** command. For example, these commands are not valid:

```
enq -odatatype=line -oparmdd=myparms  
pdpr -x "document-format=line-data  
      other-transform-options='parmdd=myparms' "
```

However, these are valid:

```
line2afp parmdd=myparms | enq  
line2afp parmdd=myparms | pdpr -d my-printer
```

```
|-----|  
|_pdeflib=PathList_
```

- Specifies the directories in which page definitions are stored.

The value is:

```
|-----|  
|_PathList_
```

- Any valid search path. The **line2afp** command searches the paths in the order in which they are specified.

With AIX, you must use a colon (`:`) to separate multiple paths.

With Windows, you must use a semi-colon (`;`) to separate multiple paths.

This option is equivalent to the document attribute **resource-context-page-definition** on the **pdpr** command.

```
|-----|  
|_prmode=-----|  
|_SOSI1_-----|  
|_SOSI2_-----|  
|_SOSI3_-----|  
|_SOSI4_-----|  
|_aaaaaaaa_-----|
```

- Specifies the type of data in the input file and whether the **line2afp** command must do optional processing of that data.

Values are:

-



Specifies that each shift-out, shift-in code be converted to a blank and a Set Coded Font Local text control.

-



Specifies that each shift-out, shift-in code be converted to a Set Coded Font Local text control.

-



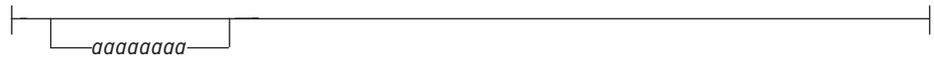
Specifies that each shift-out character be converted to a Set Coded font Local text control. Each shift-in character is converted to a Set Control Font Local text control followed by two blanks.

-



Specifies that each shift-out, shift-in code be skipped and not counted when calculating offsets for the input file. **SOSI4** is used when double-byte character set (DBCS) text is converted from ASCII to EBCDIC. When **SOSI4** is specified, the page definition offsets are correct after conversion; therefore, you do not need to account for SOSI characters when computing FIELD offsets. The processing of shift-out and shift-in codes for **SOSI4** is the same as for **SOSI2**.

-



Any 8-byte alphanumeric string. This value is supplied to all of the ACIF user exits. (See *AFP Conversion and Indexing Facility: User's Guide* for information about ACIF user exits.)

For the **SOSI** process modes to work correctly, the first font specified in the **chars** option (or in a font list in a page definition) must be a single-byte font, and the second font must be a double-byte font.

This option is equivalent to the document attribute **shift-out-shift-in** on the **pdpr** command.

`pseglib=PathList`

- Specifies the directories in which page segments and BCOCA, GOCA, and IOCA objects are stored.

The value is:

`PathList`

- Any valid search path. The **line2afp** command searches the paths in the order in which they are specified.

With AIX, you must use a colon (:) to separate multiple paths.

With Windows, you must use a semi-colon (;) to separate multiple paths.

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by piping **line2afp**'s output to an AIX print command or the **pdpr** command, you should specify the same page segment search path on both sides of the pipe, unless you are sure that the same page segments will be found by **line2afp** and InfoPrint using each program's default search path.

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by specifying **-odatatype=line** with an AIX print command, you must specify the page segment search path with **-orespath** instead of **pseglib**. For example:

```
enq -odatatype=line -oforndef=myfd -opagedef=mypd  
-orespath=/home/greg/resources -Pprinter myfile
```

This option is equivalent to the document attribute **resource-context-page-segment** on the **pdpr** command.

`resexit=ProgramName`

- Specifies the name or the full path name of the resource exit program. This is the program the **line2afp** command calls each time it tries to retrieve a requested resource from a directory. If you specify the file name without a path, the **line2afp** command searches for the file name in the paths specified by the **PATH** environment variable. If you do not specify this option, the **line2afp** command does not use a resource exit program.

The value is:

`ProgramName`

Any valid resource exit program name.

This option is equivalent to the document attribute **resource-exit** on the **pdpr** command.

`reslib=PathList`

- Specifies the paths for the system resource directories. System resource directories typically contain resources that are shared by many users. The directories can contain any AFP resources (fonts, page segments, overlays, page definitions, or form definitions).

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by piping **line2afp**'s output to an AIX print command or the **pdpr** command, you should specify the same resource search path on both sides of the pipe, unless you are sure that the same resources will be found by **line2afp** and InfoPrint using each program's default search path.

For traditional line data and for ASCII data that you want to format with a page definition, if you are transforming and printing a file by specifying **-odatatype=line** with an AIX print command, you must specify the search path for AFP resources with **-orespath** instead of **reslib**. For example:

```
enq -odatatype=line -oformdef=myfd -opagedef=mypd
    -orespath=/home/greg/resources -Pprinter myfile
```

The value is:

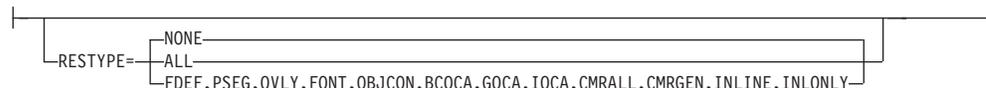


- Any valid search path. The **line2afp** command searches the paths in the order in which they are specified.

With AIX, you must use a colon (:) to separate multiple paths.

With Windows, you must use a semi-colon (;) to separate multiple paths.

This option is equivalent to the document attribute **resource-context** on the **pdpr** command.



- Specifies the type of AFP print resources ACIF should retrieve from the resource directories or libraries for inclusion in the resource file (specified with the **RESOBJDD** parameter).

Values are:

NONE

Specifies that no resource file be created.

ALL Specifies that all resources required to print or view the output document file (specified with the **OUTPUTDD** parameter) be included in the resource file.

Attention: Specifying this value can create extremely large resource files, particularly when color management resources (CMRs) are included.

FDEF Specifies that the form definition (specified with the **FORMDEF** parameter) used in processing the file be included in the resource file.

PSEG Specifies that all page segments required to print or view the output document file be included in the resource file.

OVLY Specifies that all overlays required to print or view the output document file be included in the resource file.

FONT Specifies that all font character sets and code pages required to print or view the output file be included in the resource file. Also used for TrueType and OpenType fonts and specifies that all base fonts, linked fonts, and font collections required to print the output file be included in the resource file. If **MCF2REF=CF** is specified, ACIF also includes coded fonts in the resource file; otherwise, coded fonts are not included in the resource file.

Notes:

1. Specifying **RESTYPE=FONT** is not recommended with double-byte raster fonts because of the size and large number of library members needed to process double-byte raster fonts.
2. If **RESTYPE=FONT** is not specified, you might want to specify **MCF2REF=CF**, which can improve ACIF performance by reducing the number of font members ACIF processes.
3. When specifying **RESTYPE=FONT** with TrueType and OpenType fonts, the embed flag must be set "on" to save the font in the resource file. Refer to *Using OpenType Fonts in an AFP System* for more information.
4. ACIF wraps TrueType and OpenType fonts in MO:DCA-P structured fields when it saves them in the resource file.
5. When **EXTENSIONS=RESORDER** is specified with **RESTYPE=FONT**, TrueType and OpenType fonts that were originally inline in the input file are not saved in the resource library.

OBJCON

Specifies that all object container files requested by the input data stream be included in the resource file. These object container files include TrueType and OpenType fonts, color management resources (CMRs), data objects, and the COM setup file specified by the **COMSETUP** parameter.

BCOCA

Specifies that all BCOCA objects included by an IOB structured field required to print or view the output document file be included in the resource file.

GOCA

Specifies that all GOCA objects included by an IOB structured field required to print or view the output document file be included in the resource file.

IOCA Specifies that all IOCA objects included by an IOB structured field required to print or view the output document file be included in the resource file.

CMRALL

Specifies that all CMRs required to process the output document file be included in the resource file. These CMRs include all CMRs referenced in the data stream, all CMRs referenced through a data object or color management Resource Access Table (RAT), and all generic halftone and tone transfer curve CMRs.

CMRGEN

Specifies that all CMRs referenced in the data stream plus any non-device specific CMRs referenced through a data object or color management RAT be included in the resource file.

INLINE

Specifies that all inline resources contained in the ACIF input file (specified with the **INPUTDD** parameter) are written to the output file as well as to the resource file. Otherwise, if **INLINE** is not specified, inline resources in the input file are only written to the resource file. For example, **RESTYPE=FONT,PSEG,INLINE** causes any inline fonts and page segments to be written to the output file, in addition to writing all inline and library fonts and page segments to the resource file. The inline resources precede the document in the output file.

INLONLY

Specifies that all inline resources contained in the ACIF input file are written to the output file, regardless of resource type. Only inline resources are written to the output file because those are the only resources ACIF looks for. Also, ACIF does not create a resource file, even if the **RESOBJDD** parameter is specified.

Because multiple resource types are contained in the page segment and object container libraries, and ACIF does not enforce a prefix for the eight-character resource name, you should define a naming convention that identifies each type of resource in the library. We recommend these two-character prefixes:

- B1 for BCOCA objects
- E1 for encapsulated PostScript objects
- G1 for GOCA objects
- H1 for microfilm setup objects
- I1 for IOCA objects
- IT for IOCA tile objects
- M1 for color mapping table objects
- PP for PDF single-page objects
- PR for PDF resource objects
- S1 for page segments

ACIF supports the specification of BCOCA, CMRALL, CMRGEN, FDEF, FONT, GOCA, IOCA, INLINE, OBJCON, OVLY, and PSEG in any combination. For example, if you want to specify form definitions, page segments, and overlays as the resource types, you can enter **RESTYPE=FDEF,PSEG,OVLY** or **RESTYPE=OVLY,FDEF,PSEG**.

On the other hand, ALL, INLONLY, and NONE are order dependent and override any individual resource types specified. If more than one is entered, the last one specified is used. For example, if you specify **RESTYPE=FDEF,INLONLY,PSEG,NONE,OVLY,ALL**, all resources are included.

Notes:

1. **CMRALL** and **CMRGEN** are not supported in VM and VSE.
2. When creating AFP files to view on the AFP Workbench Viewer, do not specify **RESTYPE=FONT** or **RESTYPE=ALL**. The AFP Workbench Viewer uses font definition files for font substitution instead of retrieving fonts from a resource file when displaying documents. Therefore, you do not need to download fonts to the resource file, which is time consuming and increases the number of bytes sent when the file is transferred to the workstation or archived.
3. If you have a resource type that you want saved in a resource file, and it is included in another resource type, you must specify both resource types. For example, if you request that only page segments be saved in a resource file,

and the page segments are included in overlays, the page segments are not saved in the resource file because the overlays are not searched. In this case, you need to request that both page segments and overlays be saved.

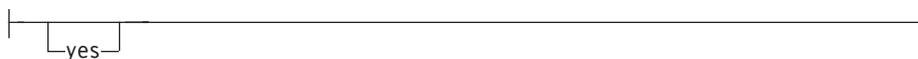
4. ACIF saves specified inline resources in the resource file, even if they are not needed to print the job. However, if you specify **EXTENSIONS=RESORDER**, ACIF saves only the inline resources actually needed to print the job. You can also use a resource exit to filter out any resources you do not want included in the resource file.



- Specifies whether the input file contains table reference characters (TRCs). Some applications can produce output that uses different fonts on different lines of a file by specifying TRCs at the beginning of each line after the carriage-control character, if one is present.

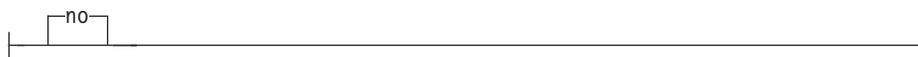
Values are:

–



The input file contains table reference characters.

–



The input file does not contain table reference characters. **no** is the default.

Consider these situations when you use TRCs:

- The order in which the fonts are specified in the **chars** option establishes which number is assigned to each associated TRC. For example, the first font specified is assigned 0, the second font 1, and so on.
- If you specify **trc=yes** but TRCs are not contained in the file, the **line2afp** command interprets the first character (or second, if carriage-control characters are used) of each line as the font identifier. Consequently, the font used to process each line of the file might not be the one you expect, and one byte of data will be lost from each line.
- If you specify **trc=no** or you do not specify **trc** at all, but your data contains a TRC as the first character (or second if carriage-control characters are used) of each line, the **line2afp** command interprets the TRC as a text character in the processed output, rather than using it as a font identifier.

This option is equivalent to the document attribute **table-reference-characters** on the **pdpr** command.



- Specifies the names of user directories containing AFP resources for processing the input file. The directories can contain any AFP resources (fonts, page segments, overlays, page definitions, or form definitions).

By convention, these resources are typically used by one user, as opposed to the system resources (specified with the **reslib** option) that are shared by many users. Therefore, you should use the **userlib** option to specify resources that are not retrieved with the **fdeflib**, **fontlib**, **ovlylib**, **pdeflib**, or **pseglib** options.

The value is:

```
|-----|  
| PathList |
```

- Any valid search path. The **line2afp** command searches the paths in the order in which they are specified.

With AIX, you must use a colon (:) to separate multiple paths.

With Windows, you must use a semi-colon (;) to separate multiple paths.

```
|-----|  
| userpath=PathList |
```

- Specifies the names of user directories containing TrueType and OpenType fonts, color management resources (CMRs), and data object resources (DORs). TrueType and OpenType fonts are Unicode-enabled AFP fonts that are not defined by the IBM Font Object Content Architecture (FOCA).

By convention, these fonts are typically used by one user, as opposed to the system fonts (specified with **fontpath**) that are shared by many users. The value is:

```
|-----|  
| PathList |
```

- Any valid search path. You must use a colon (:) in AIX and a semicolon (;) in Windows to separate multiple paths. For example:

```
line2afp inputdd=INFILE outputdd=OUTFILE pagedef=PAGTRUE formdef=F1A10110 \  
userpath=('/jdoe/fonts/truetype:/jdoe/fonts/truetype/myfonts/')
```

Note: The backslash (\) tells AIX to continue reading the command from the next line. In Windows, the backslash is not valid; therefore, the values must be on one continuous line.

The **line2afp** transform searches the paths in the order in which they are specified.

Examples

- To print a “flat” ASCII file called timesheet that does not contain carriage controls, on the InfoPrint printer named servC-1p, enter:

```
pdpr -p servC-1p -x "document-format=line-data  
form-definition=FDEF1 page-definition=PDEF3 input-exit=apka2e  
carriage-control-type=none" timesheet
```

Because you specified `document-format=line data`, InfoPrint invokes the **line2afp** command. Because you specified `form-definition=FDEF1`, the **line2afp** command uses the FDEF1 form definition. Because you specified `page-definition=PDEF3`, the **line2afp** command uses the PDEF3 page definition.

If the PDEF3 page definition specifies 2-up printing, the timesheet file prints 2-up; that is, with two “pages” printed side by side on the same physical page.

- On AIX, assume that you want to print a traditional line data file called statements. Assume that the file contains ANSI carriage-control characters.

To print this file on the InfoPrint printer named servA-lp; use form definition FDEF6 in your current directory (/usr/liz/fdefs) and use page definition P1USER10, which might be in the directory /usr/res/pdefs1 or in the directory /usr/res/pdefs2, enter:

```
pdpr -p servA-lp -x "document-format=line-data form-definition=FDEF6
resource-context=/usr/liz/fdefs page-definition=P1USER10
resource-context-page-definition=/usr/res/pdefs1:/usr/res/pdefs2
carriage-control-type=ansi-ebcdic
new-line-options=counted-4-octet-aligned"
/usr/370/statements
```

- Because you specified document-format=line data, InfoPrint invokes the **line2afp** command.
 - Because you specified page-definition=P1USER10, the **pdpr** command tells the **line2afp** command to use the page definition named P1USER10.
 - Because you specified resource-context-page-definition, the **pdpr** command tells the **line2afp** command to search the two directories you specified for the page definition.
 - Because you specified form-definition=FDEF6, the **pdpr** command tells the **line2afp** command to use the form definition named FDEF6.
 - Because you specified carriage-control-type=ansi-ebcdic and new-line-options=record, the **pdpr** command gives **line2afp** information about the data stream format of statements.
- Suppose you downloaded a file called myfile from a S/370 host to the Windows PC. The file transfer process converted the file's EBCDIC encoding to ASCII; the file still retains table reference characters and carriage controls. The file also retains the line length it had on the host (100 characters long). Also suppose that your current directory is d:\Host.Files.

To print this file on the InfoPrint printer BServ-lp; use the coded fonts Courier 12-pitch (X042B2) and Times New Roman 14-pitch (X0N2D2) for the output; use the form definition called F1USER10 in your current directory; and use the page definition called MYP1 (which does not name any fonts) in your current directory, enter:

```
pdpr -X 370files.X myfile
```

where the attributes file named 370files.X contains these settings:

```
document-format=line-data
chars=42B2,N202
form-definition=F1USER10
resource-context=d:\Host.Files
page-definition=MYP1
resource-context-page-definition=d:\Host.Files
new-line-options=record,100
table-reference-characters=yes
carriage-control-type=ansi-ascii
printer-name-requested=BServ-lp
```

- Because you specified document-format=line-data, InfoPrint invokes the **line2afp** command.
- The page definition you specified with page-definition does not name any fonts, but the input file contained table reference characters that indicate when fonts should be changed. You specified table-reference-characters=yes and chars=42B2,N2D2, and **pdpr** passes these values to **line2afp**.

You had to use resource-context-page-definition to specify the path to the page definition; **line2afp** does not automatically look in your current directory.

- Because you specified `chars=42B2,N2D2`, **pdpr** tells **line2afp** to associate font 42B2 with the first table reference character, and font N2D2 with the second table reference character. Any lines in the input file that begin with table reference character 0 will now print using font 42B2; lines beginning with table reference character 1 will print using font N2D2.
- Because you specified `form-definition=F1USER10`, **pdpr** tells **line2afp** to use form definition F1USER10. You had to use **resource-context** to specify the path to the form definition; **pdpr** and **line2afp** do not automatically look in your current directory.
- Suppose you downloaded a file called `myfile` from a S/370 host to the RS/6000. The file transfer process converted the file's EBCDIC encoding to ASCII; the file still retains table reference characters, plus ANSI carriage controls. You want to print this file on the InfoPrint printer `servC-lp`, but you do not have any ASCII fonts; you only have the EBCDIC coded fonts Gothic 10-pitch (**X0GT10**) and Gothic 12-pitch (**X0GT12**).

To print this file using the form definition called F1USER10 and the page definition called MYPDEF2, which does not name any fonts, enter:

```
pdpr -p servC-lp -x "document-format=line-data
  chars=GT10,GT12 input-exit=apka2e
  form-definition=F1USER10 page-definition=MYPDEF2
  table-reference-characters=yes
  carriage-control-type=ansi-ebcdic
  resource-context=/usr/mydir" myfile
```

- Because you specified `document-format=line-data`, InfoPrint invokes the **line2afp** command.
- The page definition you specified with **page-definition** does not name any fonts, but the input file contains table reference characters that specify when fonts are to be changed. You specified `table-reference-characters=yes` and `chars=GT10,GT12`, and **pdpr** passes these values to **line2afp**.
- Because you specified `chars=GT10,GT12`, **pdpr** tells **line2afp** to associate font GT10 with the first table reference character, and font GT12 with the second table reference character. Any lines in the input file that begin with table reference character 0 will now print using font GT10; lines beginning with table reference character 1 will print using font GT12.
- Because you specified `input-exit=apka2e`, **pdpr** tells **line2afp** to convert the ASCII input file into EBCDIC so you can use your EBCDIC coded fonts (GT10 and GT12). Your carriage controls are also in EBCDIC now, so you have to specify `carriage-control-type=ansi-ebcdic`. This example assumes you have `/usr/lpp/psf/bin` in your **PATH** environment variable.
- Because you specified `form-definition=F1USER10`, **pdpr** tells **line2afp** to use form definition F1USER10. You had to use **resource-context** to specify the path to the form definition; **pdpr** and **line2afp** do not automatically look in your current directory.

Files

For AIX, these files are shipped:

`/usr/lpp/psf/bin/line2afp`

Symbolic link to the **acif** command

`/usr/lpp/psf/bin/acif`

The **acif** command

**/usr/lpp/psf/acif/apkinp.c, apkind.c, apkres.c, apkout.c, apka2e.c, asciinp.c
asciinpe.c**

Source files for **acif** user exits

**/usr/lpp/psf/bin/apka2e, apkinp, apkind, apkres, apkout, apka2e, asciinp,
asciinpe**

User exit executables

/usr/lpp/psf/bin/Makefile

The build rules for the ACIF user exits. To modify or create your own user exits, you need to compile them with the Makefile. You can add more entries if you have more exits.

/usr/lpp/psf/acif/apkexits.h

C language header file for the ACIF user exits

For Windows, these files are shipped:

install_path\bin\line2afp.exe

The **acif** executable

install_path\bin\acif.exe

The **acif** command

**install_path\exits\acif\apkinp.c, apkind.c, apkres.c, apkout.c, apka2e.c, asciinp.c
asciinpe.c**

Source files for **acif** user exits

**install_path\bin\apka2e.dll, apkinp.dll, apkind.dll, apkres.dll, apkout.dll,
apka2e.dll, asciinp.dll, asciinpe.dll**

User exit executables

install_path\exits\acif\apkexits.h

C language header file for the ACIF user exits

**install_path\exits\acif\apka2e.dsw, apkinp.dsw, apkind.dsw, apkres.dsw,
apkout.dsw, apka2e.dsw, asciinp.dsw, asciinpe.dsw**

Microsoft Visual C++ 6.0 Workspaces for the user exists

**install_path\exits\acif\apka2e.dsp, apkinp.dsp, apkind.dsp, apkres.dsp,
apkout.dsp, apka2e.dsp, asciinp.dsp, asciinpe.dsp**

Microsoft Visual C++ 6.0 Project files for the user exits. To customize and build your own user exits, you need to install and use Microsoft Visual C++. You can also use other C development environments, such as Borland, but InfoPrint Manager only ships samples for Microsoft Visual C++.

Note: For more information about the **acif** user exits and the user exit executables, see *AFP Conversion and Indexing Facility: User's Guide*, S550-0436.

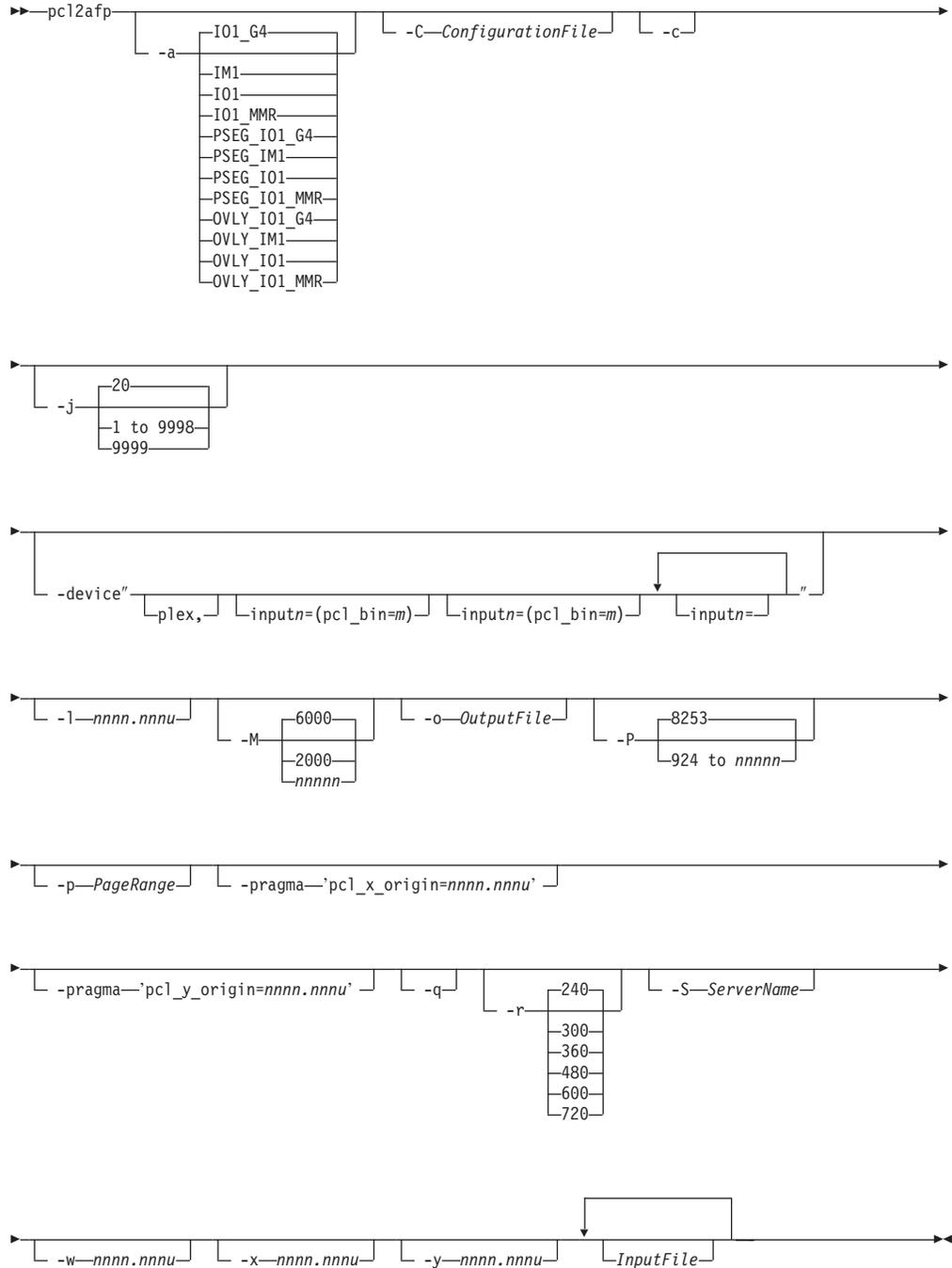
Messages

For AIX, message files for the **line2afp** transform can be found in **/usr/lib/nls/msg/LANG/acif.cat**, where *LANG* is the name of a locale, for example, **en_US**.

pcl2afp command: transforms PCL data to AFP

Syntax

pcl2afp command



Description

The **pcl2afp** command transforms a PCL data stream file into an AFP data stream file.

The PSF DSS runs the **pcl2afp** command automatically whenever:

- InfoPrint identifies the format of a document in a print job as PCL.
- You use the **pdpr** command to specify **document-format=pcl** with the **-x** flag or in an attributes file.
- You specify a data type of **-odatatype=pcl** with an AIX print command (**enq**, **lp**, or **qprt**) or with the **lprafp** command.

If you specify multiple values of the same flag, **pcl2afp** uses the last value specified, except for the **-p** flag. Multiple values of the **-p** flag are accumulated and the pages identified for printing are printed in normal numerical sequence, regardless of the order you specify.

When using the **pcl2afp** command, you can specify an optional input file name. If you do not specify an input file name, **pcl2afp** uses standard input. The output file name is also optional; if you do not specify one, the **pcl2afp** command writes the results to standard output.

Note some information about the flags you can specify with the **pcl2afp** command:

1. You can pass flags to **pcl2afp** using the **other-transform-options** document attribute on the InfoPrint **pdpr** command or the **-o** flag of the AIX print commands (**enq**, **lp**, and **qprt**) and the InfoPrint **lprafp** command.
2. When you run **pcl2afp** as a standalone transform, flags can appear anywhere on the command line with or without a blank in the flag and value pair.
When you specify **pcl2afp** transform flags with the **other-transform-options** attribute, any string containing a blank must be surrounded by single quotes.
Do not use a blank between the flag and the value when you specify **pcl2afp** transform flags with an AIX print command or with the **lprafp** command.
3. When you specify flags with the **pcl2afp** command, **pcl2afp** echoes them back to your display along with the settings for the flags. To suppress the command echoing, enter the **-q** (quiet) flag along with the **pcl2afp** command.
4. The order in which InfoPrint uses PCL options is as follows:
 - a. Any options you specify on the command line with the **pcl2afp** command (for example, **-r300**), including values contained in the customized configuration file you specify with the **pcl2afp -C** command. If you specify the same option more than once, InfoPrint uses the last value.
 - b. Values contained in the configuration file, **pcl2afp.cfg**, in the current directory, if you invoked **pcl2afp** directly. If you invoked **pcl2afp** indirectly by submitting a print job with a data type of PCL, **pcl2afp** ignores any configuration files in the current directory, and proceeds to step 4c.
 - c. Values contained in the **pcl2afp.cfg** file your home directory.
 - d. Values contained in the default **pcl2afp** command configuration file:

For AIX

/usr/lpp/psf/pcl2afp/pcl2afp.cfg

For Windows

install_path\pcl2afp\pcl2afp.cfg

- e. Values contained in the customized configuration file you specify with the **pcl2afpd -C** command.
- f. Values contained in the default **pcl2afpd** daemon configuration file:

For AIX

/usr/lpp/psf/pcl2afp/pcl2afpd.cfg

For Windows

install_path\pcl2afp\pcl2afpd.cfg

- g. Values contained in the **pcl2afpd.cfg** file when **pcl2afpd** was started.
 - h. The defaults that are built into **pcl2afpd**. These defaults are the same as the defaults for the **pcl2afp** flags.
5. The position of PCL data on the page depends on the interaction of the **-l** and **-w** flags, the **-x** and **-y** flags, and the form definition you use. In general, to position data on the page:
- Use **-l** and **-w** to set the physical page dimensions.
 - Use a form definition that specifies zero vertical offset and zero horizontal offset (for example, F100S, F100D, or F100T) or specify X and Y offsets of 0 when you submit the print job. For more information, see “How to specify exact placement of PCL output using zero vertical and horizontal offset” on page 376.
 - Use **-x** and **-y** to avoid any areas that your printer cannot print.
6. You can specify the **pcl2afp** flags and values with the **pcl2afp** command, with the **pdpr -x “other-transform-options”** command, or with **enq -o**, **lp -o**, **qprt -o**, or **lprafp -o** command. You can also specify equivalent attributes with the **-x** flag or in an attributes file with the **pdpr** command.

Note: If you are migrating from PSF for AIX, see Appendix B, “Migrating PSF for AIX job script keywords to InfoPrint equivalents,” on page 1035 for a table of attributes equivalent to the job script keywords that you use to specify flags and values for transforms.

The **pcl2afp** transform uses these Embedded Microtype Fonts:

- Albertus Medium
- Albertus Extra Bold
- Antique Olive
- Antique Olive Italic
- Antique Olive Bold
- Arial
- Arial Italic
- Arial Bold
- Arial Bold Italic
- Clarendon Condensed Bold
- Coronet
- Courier Italic
- Courier Bold
- Courier Bold Italic
- Garamond Antiqua
- Garamond Kursiv
- Garamond Halbfett
- Garamond Kursiv Halbfett
- Letter Gothic
- Letter Gothic Italic
- Letter Gothic Bold
- Marigold
- CG Omega
- CG Omega Italic
- CG Omega Bold
- CG Omega Bold Italic
- Symbol
- CG Times

- CG Times Italic
- CG Times Bold
- CG Times Bold Italic
- Times New Roman
- Times New Roman Italic
- Times New Roman Bold
- Times New Roman Bold Italic
- Univers Medium
- Univers Medium Italic
- Univers Bold
- Univers Bold Italic
- Univers Condensed Medium
- Univers Condensed Medium Italic
- Univers Condensed Bold
- Univers Condense Bold Italic
- WingDings

The **pcl2afp** transform also uses the Line Printer embedded Bitmap Font.

Font substitution occurs when a set of capabilities, such as Symbol Set, Spacing, Pitch, and Typeface, are compared to the fonts available to the rip, and the closest match wins. You cannot disable font substitution. If an error occurs during font substitution, the error is not logged. When a custom font is included in the data stream, and the PCL job refers to it, the custom font is used.

For more information about the **pcl2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Automatic invocation

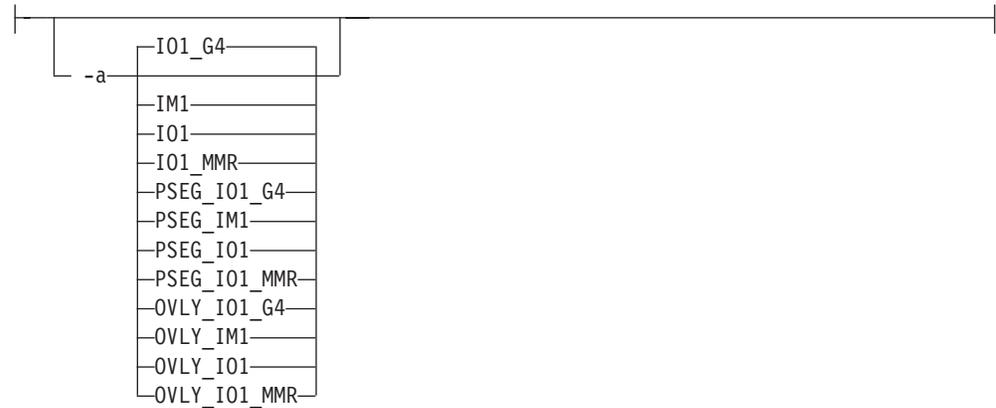
The PSF DSS automatically invokes the **pcl2afp** transform command whenever you submit a PCL file for printing. You can pass options to **pcl2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **pcl2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-r 600**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**.

Limitations

- The **pcl2afp** transform must be installed, and the **pcl2afpd** daemon must be running.
- PCL data can contain device commands (for example, to begin or end duplexing or to change the input bin). Because the AFP architecture defines those device functions in a form definition resource instead of the print data, the **pcl2afp** transform ignores the device commands in the print data. To access those device functions (such as duplexing and bin selection), you must specify them in the form definition or attributes file, or on a print command, when you print the job.
- Resolution conversion algorithms might yield degraded appearance when used to reduce the resolution of a data stream. For this reason, **pcl2afp** might degrade the appearance of higher-resolution data streams when used with 240-pel printers. You should verify that print fidelity is satisfactory.

- There are subtle differences between PCL4 and PCL5e when it comes to handling fonts. While many PCL4 files will work with **pcl2afp**, some might not produce the expected output.

Flags and values



- Determines the type of AFP data stream image to generate for each page in the PCL file.

Values are:



- Compressed Image Object Content Architecture (IOCA) image in Modified TSS (formerly CCITT) T.6 G4 Facsimile Coding Scheme (G4 MMR) format. This is the recommended output type because it takes up less space on the fixed disk, and it prints faster. It is the default specified in the **pcl2afpd** daemon and **pcl2afp** command configuration files.

Note: The InfoPrint 3812 and 3816 printers do not support printing with an image type of **IO1_G4**. For these printers, specify an image type of **IO1_MMR** because it is the compressed image type supported by these printers, and it will result in faster printing than uncompressed image types. PPDS, PCL, and TCP/IP-attached IPDS printers can print IOCA images.



IM1 image. This type of image is not compressed.



IOCA image. This type of image is not compressed.



Compressed IOCA image in Modified Modified Read (MMR) format.



- Page segment of the specified image type.

Note: When generating page segments from multiple-page documents, you might want to use the **-p** flag to select which page is to be made into a page segment; otherwise, multiple page segments will be created, one for each page of PCL.



- Overlay of the specified image type.

Note: When generating overlays from multiple-page documents, you might want to use the **-p** flag to select which page is to be made into an overlay; otherwise, multiple overlays will be created, one for each page of PCL.

This flag is similar to the **image-out-format** document attribute on the **pdpr** command.



- Specifies the path and file name of the customized configuration file **pcl2afp** uses with the transform. If you specify the **-C** flag with an AIX print command (**enq**, **lp**, or **qprt**), or with the **lprafp** command, specify the fully qualified name of the file, including its path; for example:

For AIX

/usr/lpp/psf/pcl2afp/myfile.cfg

For Windows

d:\pcl\myfile.cfg



- Concatenates multiple input files without putting a Esc-E (end of job) characters between the files. The **pcl2afp** command interprets the input files as a continuous data stream, and processes them as if they were one PCL job. This flag can be useful when processing PCL files with inline resources.

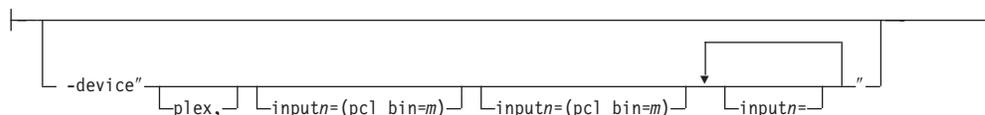
Note: Do not use this flag when you perform the PCL-to-AFP data stream transform by submitting a print job with the **pdpr** command.



- Specifies one or more input files to be transformed. If you specify more than one input file name, the **pcl2afp** command concatenates the files and separates them with the Esc-E (end of job) characters. The results of the transform are written to a single output file (if one is specified) or to standard output.

In addition, you can specify PCL inline resource files as input files to the **pcl2afp** command. The file name of the inline resource file must precede the file name of the PCL print file so that **pcl2afp** concatenates the files in the correct order. The **pcl2afp** command concatenates the resources in front of the print file when the **-c** flag is specified.

If you do not specify an input file, **pcl2afp** uses standard input. If the **pcl2afp** command cannot read from standard input, the command issues a message.



- Specifies whether to recognize the plex command, and optionally, how to associate the AFP input tray (**inputn**, where *n* is a value between 1 to 255) with the pcl bin (**pcl_bin=m**, where *m* is a value between 0 to 59). When you do not specify **inputn=(pcl_bin=n)** with **plex**, InfoPrint recognizes the plex command with no tray mappings.

Note: You can specify **inputn=(pcl_bin=m)** up to twenty times.



- Specifies the maximum amount of time, in minutes, to spend processing the job. Values are:

20 20 minutes, the default

1 to 9998

The timer ranges from 1 to 9998 minutes, in one-minute increments

9999 No time limit



- Specifies the length of the generated image; *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **pcl2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

Note: If a text margin is already built into the file, try **-11i** to set the length to 11 inches.

For 240-pel resolution printers, values are:

11i 11 inches, the default

16 to 5280

The length can be from 16 pels to 5280 pels, 0.067i to 22.002i, or 1.701m to 558.852m. For example, these values are all valid:

- l 40m
- l 200.5m
- l 13i
- l 4000

For 300-pel resolution printers, values are:

11i 11 inches, the default

16 to 6600

The length can be from 16 pels to 6600 pels, 0.053i to 22.001i, or 1.346m to 558.842m. For example, these values are all valid:

- l 40m
- l 200.5m
- l 13i
- l 5000

For 480-pel resolution printers, values are:

11i 11 inches, the default

16 to 10560

The length can be from 16 pels to 10560 pels, 0.033i to 22.002i, or 0.838m to 558.852m. For example, these values are all valid:

- l 40m
- l 200.5m
- l 13i
- l 8000

For 600-pel resolution printers, values are:

11i 11 inches, the default

16 to 20400

The length can be from 16 pels to 20400 pels, 0.0267i to 34.001i, or 0.678m to 863m. For example, these values are all valid:

- l 40m
- l 200.5m
- l 13i
- l 10000

This flag is equivalent to the **image-length** document attribute on the **pdpr** command.



- Determines the maximum amount of memory, in KB, that the transform can use. This flag can be useful if you are processing large PCL jobs that require a lot of memory.

Values are:

6000 6000KB (6MB), the default

2000 to *nnnnn*

The maximum memory ranges from 2000 to *nnnnn* (where *nnnnn* is the maximum upper limit allowed by AIX or Windows) up to 64MB.

`-o` *OutputFile*

- Specifies the output path and file into which the transformed PCL files are to be written. If more than one output file is specified, the last specified file name and path is the one used. If no output file is specified, the result is written to standard output.

You cannot use `-o` *OutputFile* on the command line with the **enq**, **lp**, **qprt**, or **lprafp** commands. You can only use `-o` *OutputFile* with the **pcl2afp** command or with the **other-transform-options** attribute on the **pdpr** command.

This option is equivalent to the **transform-output-file-name** document attribute on the **pdpr** command.

`-p` 8253
924 to *n**n**n**n*

- Specifies the TCP/IP port number **pcl2afp** uses to make a connection with the workstation on which the **pcl2afpd** daemon is running (set by the **-S** flag). If your InfoPrint installation uses more than one PCL daemon, use this flag to select the daemon.

This port should not be the same port used by the TCP/IP-attached IPDS printer or by the PostScript transform. On AIX, to find out which ports are already being used on your system (although they might or might not be active), look in the */etc/services* file.

Values are:

8253 The default port number.

924 to *nn**n**n***

Any valid port number greater than or equal to 924. With AIX, the maximum value, *n**n**n**n*, depends on AIX, but it must be equal to or less than 65535.

Note: You can only access secure ports, 924 to 1023, with **root** user authority.

`-p` *PageRange*

- Specifies that the output should only contain selected pages. When you specify multiple `-p` flags, the **pcl2afp** command accumulates them and prints the identified pages in normal numerical order, regardless of the order you specify. Examples of values include:

-p even

Output even pages.

-p odd

Output odd pages.

-p 1-10

Output pages 1 through 10.

-p 10-

Output pages from page 10 until the end of the job.

-p 1 -p 3 -p 6

Output pages 1, 3, and 6, in that order.

-p1 -p6 -p3

Output pages 1, 3, and 6, in that order.

This flag is equivalent to the **page-select** document attribute on the **pdpr** command.

```
-pragma-'pcl_x_origin=nnnn.nnnu'
```

Specifies an X presentation page origin of the generated image; *nnnn.nnnu* is a number that can optionally contain a decimal point, and *u* is the units in inches (i) or millimeters (m). If you do not specify a unit (i or m), **pcl2afp** uses pels as the unit type. You cannot specify fractional values, that is, you cannot use a decimal point, for pels. If this value is unspecified, zero is presumed.

```
-pragma-'pcl_y_origin=nnnn.nnnu'
```

Specifies an Y presentation page origin of the generated image; *nnnn.nnnu* is a number that can optionally contain a decimal point, and *u* is the units in inches (i) or millimeters (m). If you do not specify a unit (i or m), **pcl2afp** uses pels as the unit type. You cannot specify fractional values, that is, you cannot use a decimal point, for pels. If this value is unspecified, zero is presumed.

```
-q
```

Quiets (suppresses) the echoing of the **pcl2afp** command to the display.

```
-r  
  240  
  300  
  360  
  480  
  600  
  720
```

- Specifies the resolution of the output image. Select the resolution based on the printer on which you will be printing the image.

Values are:

- | | |
|------------|---|
| 240 | 240 pels-per-inch (for example, InfoPrint 3812, 3825, 3827, 3835, and 3900 printers), the default |
| 300 | 300 pels-per-inch (for example, InfoPrint 3112, 3116, 4019, 4028, 4029, and 4039 printers and Hewlett-Packard printers) |
| 360 | 360 pels-per-inch (for example, InfoPrint 5000 printers) |
| 480 | 480 pels-per-inch |
| 600 | 600 pels-per-inch (for example, InfoPrint 3900 printers) |
| 720 | 720 pels-per-inch (for example, InfoPrint 5000 printers) |

Note: If you specify a resolution that the printer does not support, InfoPrint will print the image under most conditions, but with degraded results. Specify the correct resolution for the printer on which you will print the PCL job.

This flag is equivalent to the **default-printer-resolution** document attribute on the **pdpr** command.

`-S—ServerName—`

- Specifies the name of the AIX system on which the **pcl2afpd** daemon is running. If you do not specify this flag, the *ServerName* defaults to the effective name of the workstation on which you issued the **pcl2afp** command. The value is:

ServerName

Any valid AIX workstation name on which the **pcl2afpd** daemon is installed and running. The name is defined in the **/etc/hosts** file or by a name server, and can be a nickname like **molly**, or a dotted decimal address like **9.99.9.23**.

`-w—nnnn.nnnu—`

- Specifies the width of the generated image; *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **pcl2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

Note: If a text margin is already built into the file, try **-w8.5i** to set the width to 8.5 inches.

For 240-pel resolution printers, values are:

8.5i 8.5 inches, the default

16 to 4080

The width can be from 16 pels to 4080 pels, 0.065i to 17.002i, or 1.641m to 431.852m. For example, these values are all valid:

```
-w 40m
-w 200.5m
-w 13i
-w 3300
```

For 300-pel resolution printers, values are:

8.5i 8.5 inches, the default

16 to 5100

The width can be from 16 pels to 5100 pels, 0.052i to 17.001i, or 1.313m to 431.842m. For example, these values are all valid:

```
-w 40m
-w 200.5m
-w 13i
-w 5000
```

For 480-pel resolution printers, values are:

8.5i 8.5 inches, the default

16 to 8160

The width can be from 16 pels to 8160 pels, 0.065i to 17.002i, or 1.641m to 431.852m. For example, these values are all valid:

```
-w 40m
-w 200.5m
-w 13i
-w 6600
```

For 600-pel resolution printers, values are:

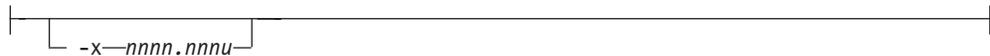
8.5i 8.5 inches, the default

16 to 10200

The width can be from 16 pels to 10200 pels, 0.052i to 17.001i, or 1.313m to 431.842m. For example, these values are all valid:

```
-w 40m
-w 200.5m
-w 13i
-w 10000
```

This flag is equivalent to the **image-width** document attribute on the **pdpr** command.



- Specifies an X offset (horizontal offset) of the generated image; *nnnn.nnnu* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **pcl2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

An offset value specifies a border or margin around the generated image to avoid the non-printable areas of some printers. An X-offset value specifies the left and right margins of the generated image.

For all printers, values are:

0.167i 0.167 inches, the default

0 to 8.5i

The X offset must be less than half of the width (**-w**) of the generated image. For example, if you specify a width of 13i, the X offset can be no larger than 6.5i.

This flag is equivalent to the **x-image-shift** document attribute on the **pdpr** command.

Notes:

1. The X offset specified with **-x** must be less than half the width specified with **-w**. If the **-x** value is greater than or equal to the **-w** value, a blank page is printed.
2. The X-offset value specifies margins on *both* the left and right sides of the page. If you have a width of 8.5 inches and specify an X offset of 5 inches, a blank page will also result because the margins on the left and right sides of the paper exceed the width of the paper.
3. PCL processing is slower when you use the **-x** flag, because the **pcl2afpd** daemon must stop and re-start the PCL interpreter. You can improve performance by changing the **pcl_x_offset** value in the **pcl2afpd** daemon configuration file rather than using **-x** on a regular basis.



- Specifies a Y offset (vertical offset) of the generated image; *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **pcl2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

An offset value specifies a border or margin around the generated image to avoid the non-printable areas of some printers. A Y-offset value specifies the top and bottom margins of the generated image.

For all printers, values are:

0.167i 0.167 inches, the default

0 to 8.5i

The Y offset must be less than half of the length (**-l**) of the generated image. For example, if you specify a length of 14i, the Y offset can be no larger than 7.0i.

This flag is equivalent to the **y-image-shift** document attribute on the **pdpr** command.

Notes:

1. The Y offset specified with **-y** must be less than the half of the length specified with **-l**. If the **-y** value is greater than or equal to the **-l** value, a blank page is printed.
2. The Y-offset value specifies margins on *both* the top and bottom edges of the page. If you have a length of 11 inches and specify an Y offset of 6 inches, a blank page will also result because the margins on the top and bottom of the paper exceed the length of the paper.
3. PCL processing is slower when you use the **-y** flag, because the **pcl2afpd** daemon must stop and re-start the PCL interpreter. You can improve performance by changing the **pcl_y_offset** value in the **pcl2afpd** daemon configuration file rather than using **-y** on a regular basis.

Transforming PCL image data

The output of the PCL transform (the **pcl2afp** command) is AFP image data for any type of PCL input, whether it be text or images. The image created by the **pcl2afp** command minimizes white space in an image block by defining the image block size to be exactly the right size to contain all of the black pels of the image. A PCL image might not print if any part of the image lies outside of the valid printable area. In addition, be aware that using form definitions that specify a non-zero logical page origin might move a valid PCL image out of the printable area; thus, the image won't print.

The **pcl2afp** command, the **pcl2afp.cfg** configuration file, and the **pcl2afpd.cfg** configuration file all let you specify the length and the width of PCL images. Before you use the **-l** and **-w** flags of the **pcl2afp** command or modify the **pcl_length** and **pcl_width** options in the configuration file, it's helpful to understand how InfoPrint places PCL images on the page.

Figure 5 on page 374 shows an example of a PCL image. This image is 8.5 inches high and 11 inches wide, measured from the lower-left corner of the image.

If you want to print the entire image, specify a length of 11i and a width of 8.5i. When InfoPrint prints the image, the upper-left corner of the image is placed at the point on the page called the logical page origin, which is specified in the form definition. The logical page origin is the point on the form where the page of data

is positioned, and it is specified as an offset from the top-left corner of the sheet. Therefore, if the form definition has a logical page origin of 0.165 inches from both the left and top sides of the sheet, the top-left corner of the image is placed 0.165 inches down and to the left of the upper left corner of the sheet.

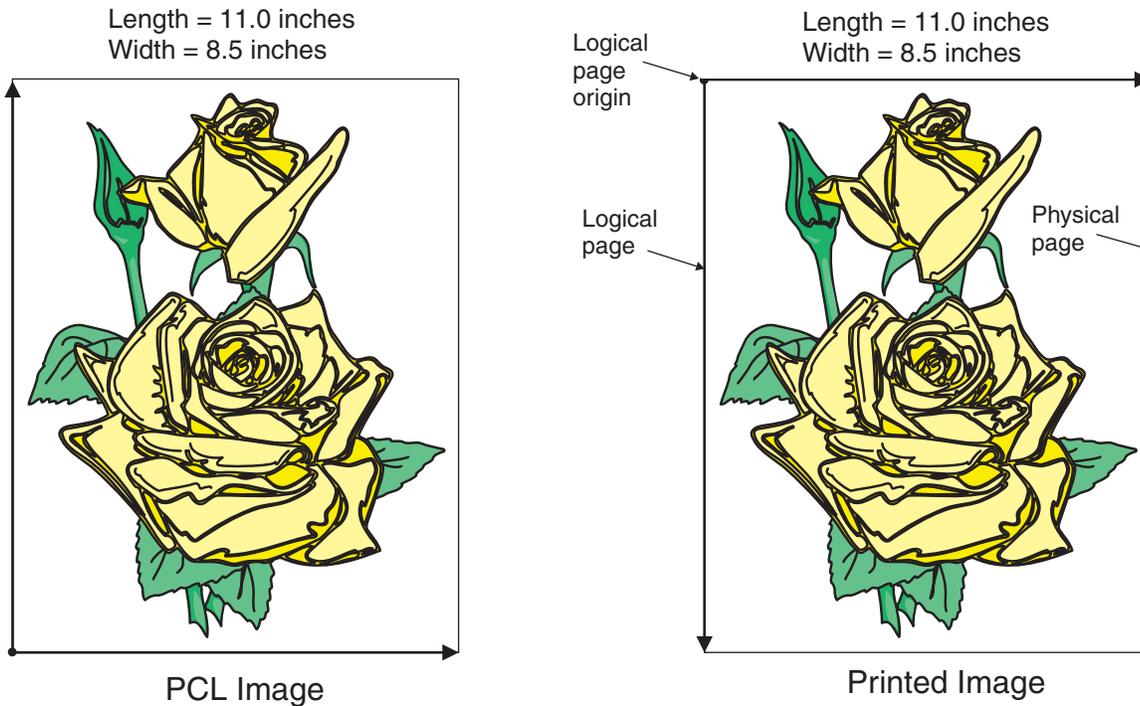


Figure 5. A PCL image

All this gets more complicated if you don't specify the entire image. For example, to crop the image so that you only use the lower left corner, you would specify a width of 7i and a length of 7i with the **pcl2afp** command. The upper left corner of the resulting image is then placed at the logical page origin (Figure 6 on page 375).

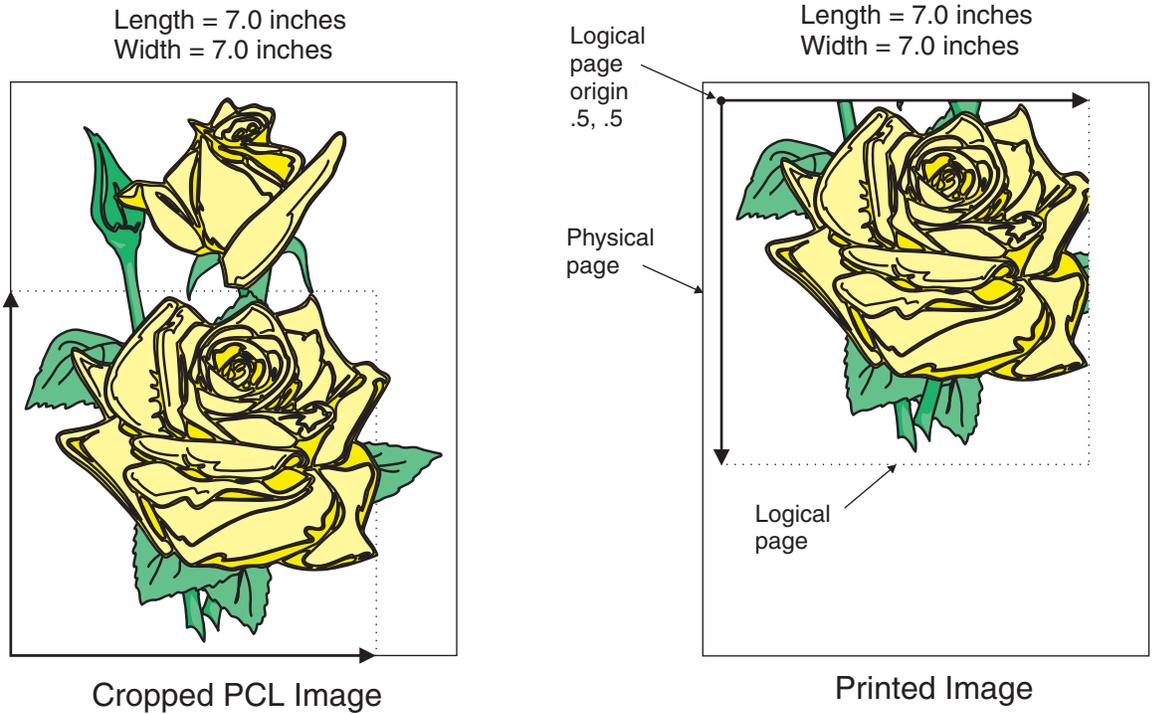


Figure 6. A cropped PCL image

In this final example, specify a PCL image that is 8.5 inches wide and 11 inches high. Again, the upper-left corner of the transformed image is placed at the logical page origin. Unless you specify a form definition with the print job that has a zero logical page origin (for example, **F100S**, **F100D**, or **F100T**), the page will not print because part of the image is outside the valid printable area (Figure 7 on page 376).

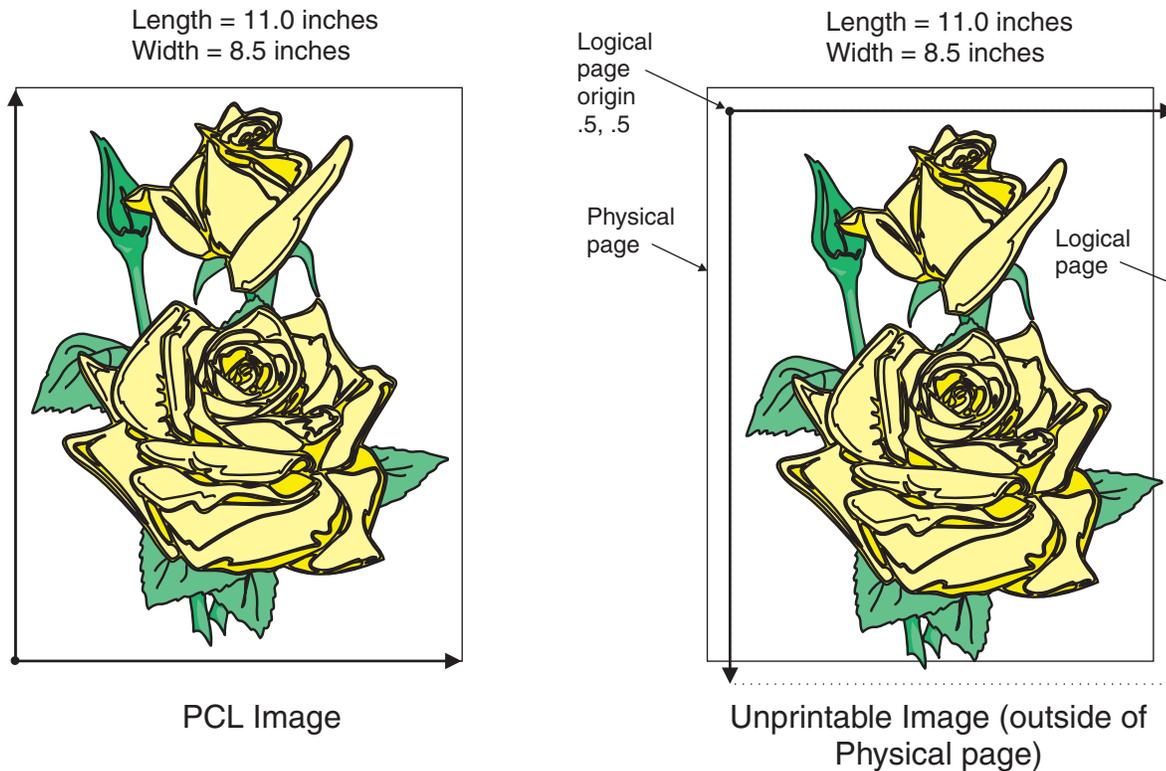


Figure 7. A PCL image offset from the top-left corner

As you can see from Figure 7, specifying the correct form definition is extremely important, particularly when you are printing a full-page image.

The default length and width values specified in the PCL configuration files, **pcl2afp.cfg** and **pcl2afpd.cfg** work with the default form definitions that InfoPrint provides for each type of InfoPrint printers.

How to specify exact placement of PCL output using zero vertical and horizontal offset

However, to specify exact placement of your PCL output on the page using a zero vertical and horizontal offset from the top-left corner of the page, do one of these actions:

- Specify one of these form definitions:
 - **F100S**
 - **F100D**
 - **F100T**
- Specify an X- and Y-offset value of **0** to override the values set in the form definition, using one of these methods:
 - The **-xoffset** and **-yoffset** flags on the AIX print commands
 - The X offset and Y offset fields on the SMIT Submit an InfoPrint Job panel
 - The **x-image-shift** and **y-image-shift** attributes with the **-x** flag or in an attributes submitted with the **pdpr** command

If you specify a 0 horizontal and vertical offset in the form definition, with an AIX print command, or in an attributes file, the image produced by the **pcl2afp** transform might be printed in the unprintable area of the printer. To avoid printing in the unprintable area, you can specify the **-x** (X offset) and **-y** (Y offset) flags on the **pcl2afp** command. These flags add white space to the top and left side of the image produced by the transform, ensuring that no data will print in the unprintable area. For more information about the unprintable area of your printer, see *Advanced Function Presentation: Printer Information*.

The **pcl2afp** and **pcl2afpd** configuration files

Instead of typing flags on the command line with the **pcl2afp** command, you can use the **-C** flag to specify a configuration file that contains the flags. In this way, you can simply specify a configuration file name, rather than typing many flags. You might find it convenient to use a configuration file if you repeatedly use the same flags with the **pcl2afp** command, or if you are using different PCL processing values than the defaults defined by your system support group.

When your system support group installed the **pcl2afp** transform, a default **pcl2afp** command configuration file, **pcl2afp.cfg**, was installed as follows:

For AIX

```
/usr/lpp/psf/pcl2afp
```

For Windows

```
install_path\pcl2afp
```

To create your own files, copy the **pcl2afp.cfg** file and then use a system editor to modify the options in this ASCII file to suit your needs.

A default **pcl2afpd** daemon configuration file, **pcl2afpd.cfg**, was also installed as follows:

For AIX

```
/usr/lpp/psf/pcl2afp
```

For Windows

```
install_path\pcl2afp
```

The **pcl2afpd** daemon configuration file can contain most of the same keywords as the **pcl2afp** command configuration file, plus some keywords that control the operation of the **pcl2afpd** daemon. Values in the command configuration file override values in the daemon configuration file.

Figure 8 on page 378 shows an example of a configuration file.

```

# pcl2afp configuration file

# KEYWORD                EQUIVALENT                PURPOSE
#                        pcl2afp FLAG
#####

port = 8253                # -P                which TCP/IP port to use
server = 127.0.0.1        # -S                which server to connect with

pcl_max_memory = 6000K    # -M                maximum amount of memory that
                        #                    PCL uses; the 'K' is ignored

pcl_job_timeout = 20      # -j                maximum number of minutes
                        #                    to process PCL job

pcl_width = 8.5i          # -w                width of generated image
pcl_length = 11i         # -l                length of generated image
pcl_x_offset = 0.167i    # -x                left and right margins
pcl_y_offset = 0.167i    # -y                top and bottom margins
pcl_resolution = 240      # -r                resolution of printer
pcl_output_type = I01_G4 # -a                type of AFP image to generate

```

Figure 8. Sample `pcl2afp` configuration file

Table 13 shows the `pcl2afp` flags and their equivalent configuration file keywords. To override the values in the default configuration file, `pcl2afp.cfg`, you can do one of the following:

- Specify flags with the `pcl2afp` command at transform time.
- Specify a configuration file with `pcl2afp -C` at transform time.
- Specify `pcl2afp` flags with `-o` flags on an AIX print command, or with equivalent attributes with the `-x` flag or in an attributes file on the `pdpr` command, to transform a file and print it at the same time.

Note: If you are migrating from PSF for AIX, see Appendix B, “Migrating PSF for AIX job script keywords to InfoPrint equivalents,” on page 1035 for a table of attributes equivalent to the job script keywords that you use to specify flags and values for transforms.

Table 13. PCL printing and processing options

<i>pcl2afp</i> Flag	<i>Keyword in pcl2afp and pcl2afpd Configuration Files</i>
Note: The valid values for configuration file keywords are the same as for the corresponding <code>pcl2afp</code> command flag. For keywords used only in the <code>pcl2afpd</code> daemon configuration file, which have no corresponding command flag, see “ <code>pcl2afpd</code> utility: starts the <code>pcl2afpd</code> daemon” on page 230.	
<code>-a—OutputType—</code>	<code>pcl_output_type=value</code>
<code>-C—ConfigurationFile—</code>	None
<code>-c</code>	None

Table 13. PCL printing and processing options (continued)

<p> -device _____ </p>	<p> device_controls= _____ </p> <p> plex, inputn=(pcl_bin=m) _____ </p> <p> inputn=(pcl_bin=m) _____ </p> <p> inputn=_____ </p>	
<p> InputFile _____ </p>	<p>None</p>	
<p> -j-nnnn _____ </p>	<p> pcl_job_timeout=nnnn _____ </p>	
<p> -M-nnnn _____ </p>	<p> pcl_max_memory=nnnn _____ </p>	
<p> -o-OutputFile _____ </p>	<p>None</p>	
<p> -P-nnnn _____ </p>	<p> port=PortNumber _____ </p>	
<p> -p-PageRange _____ </p>	<p>None</p>	
<p> -pragma 'pcl_x_origin=nnnn.nnnu' _____ </p>	<p> pragma=pcl_x_origin=nnnn.nnnu _____ </p>	
<p> -pragma 'pcl_y_origin=nnnn.nnnu' _____ </p>	<p> pragma=pcl_y_origin=nnnn.nnnu _____ </p>	
<p> -q _____ </p>	<p>None</p>	
<p> -q-nnn _____ </p>	<p> pcl_resolution=nnn _____ </p>	
<p> -S-ServerName _____ </p>	<p><i>Keyword in pcl2afp Configuration File</i></p>	<p><i>Keyword in pcl2afpd Configuration File</i></p>
	<p> server=ServerName _____ </p>	<p>None</p>
<p> -w-nnnn.nnnu _____ </p>	<p><i>Keyword in pcl2afp and pcl2afpd Configuration Files</i></p>	
	<p> pcl_width=nnnn.nnnu _____ </p>	

Table 13. PCL printing and processing options (continued)

-x—nnnn.nnnu—	—pcl_x_offset=nnnn.nnnu—	
-y—nnnn.nnnu—	—pcl_y_offset=nnnn.nnnu—	
None	<i>Keyword in pcl2afp Configuration File</i>	<i>Keyword in pcl2afpd Configuration File</i>
	None	—log_file=PathName—
None	None	—mail_command=PathName—
None	None	—notify=UserID—
None	None	—pcl_program=PathName—
None	None	—pcl_support_program=PathName—
None	None	—work_directory=PathName—
None	None	—pcl_fonts_path=PathName—

Simple examples

This section shows some simple examples of using **pcl2afp**. For more detailed examples, see “More complex examples” on page 381.

- To submit the sample PCL file `sample.pcl` supplied with InfoPrint Manager for AIX to the logical printer named `Pserv-lp`, enter:

```
enq -Pserv-lp -odatat=pcl /usr/lpp/psf/pcl2afp/sample.pcl
```

- To transform the PCL file `myfile` into an AFP data stream, and then submit it to the InfoPrint logical printer called `Pserv-lp`, enter:

```
pdpr -p Pserv-lp -x "default-printer-resolution=300" myfile
```

or

```
pcl2afp -r300 myfile | pdpr -p Pserv-lp
```

Note: You need to specify a resolution of 300 pels (**default-printer-resolution=300**) because the `Pserv-lp` printer routes jobs to a 4019 printer device. The 4019 is a 300-pel resolution printer and the default resolution for the **pcl2afp** command is 240 pels.

- To transform the PCL file `myfile` into an AFP data stream, with an image that is 8 inches high and 5 inches wide, and write the result to a file called `myfile.afp`, enter:

```
pcl2afp -l 8i -w 5i -o myfile.afp myfile
```

or

```
pcl2afp -l 8i -w 5i myfile > myfile.afp
```

- To transform the PCL myfile file into an AFP data stream in 300-pel resolution, as an IO1_MMR image, and send the result to the printer with the **pdpr** command, enter:

```
pcl2afp -aIO1_MMR -r300 myfile | pdpr -X myafp.X -p lserv-1p
```

or

```
pdpr -X mypcl.X myfile -p Pserv-1p
```

where the attributes file named myafp.X contains these settings:

```
document-format=modca-p  
printer-name-requested=robin-1p
```

and the attributes file named mypcl.X contains these settings:

```
document-format=pcl  
printer-name-requested=robin-1p  
image-output-format=io1_mmr  
default-printer-resolution=300
```

- Assume that the PCL file myfile uses the BarKode.pcl font that is a PCL resource on a system named molly. Also assume that the **pcl2afpd** daemon is running on robin, but you are logged in to the AIX system named molly. To transform myfile into an AFP data stream, but not print it:

```
pcl2afp -S robin -c -o myfile.afp BarKode.pcl myfile
```

The **-c** flag concatenates the two input files, with the file BarKode.pcl first, so that the two files are processed together. In this way, myfile uses BarKode.pcl as an inline resource.
- Because the **pcl2afp** transform does not accept HP-GL/2 directly as input, you can use the **-c** flag to concatenate some sample PCL files that allow the HP-GL/2 file to be processed. To transform the HP-GL/2 file myfile.gl into a MO:DCA-P data stream file myfile.afp, enter:

For AIX

```
pcl2afp -o myfile.afp -c /usr/lpp/psf/pcl2afp/gl_before.pcl  
myfile.gl /usr/lpp/psf/pcl2afp/gl_after.pcl
```

For Windows

```
pcl2afp -o myfile.afp -c install_path\pcl2afp\gl_before.pcl  
myfile.gl install_path\pcl2afp\gl_after.pcl
```

The **-c** flag concatenates the three input files, making myfile.gl appear as a PCL file that includes HP-GL/2 commands.

More complex examples

If you are migrating from PSF for AIX, see Appendix B, “Migrating PSF for AIX job script keywords to InfoPrint equivalents,” on page 1035 for a table of attributes equivalent to the job script keywords that you use to specify flags and values for transforms.

This section shows these examples of transforming and printing PCL files:

- “Printing a PCL file” on page 382
- “Printing a PCL file with a defined image size” on page 382
- “Printing a PCL file at 300-pel resolution” on page 383
- “Printing a PCL file with a custom configuration file” on page 384
- “Transforming three PCL files at the same time” on page 385

- “Transforming an HP-GL/2 file” on page 386

Printing a PCL file:

In this example, you will submit a PCL file called PCLFile1 for printing on an InfoPrint printer called molly-lp.

Configuration assumptions: This example assumes these tasks have been performed by your system support group:

- InfoPrint, including the **pcl2afp** transform, has been installed on the workstation on which the **pcl2afp** command is executed.
- The **pcl2afpd** daemon has been started on the workstation on which the **pcl2afp** command is executed.
- A 3825 printer device has been installed and defined to InfoPrint. A logical printer called molly-lp routes jobs to the physical printer representing that device.

Using the command line options: To print this example, enter this command on the command line:

```
pdpr -p molly-lp PCLFile1
```

or on AIX

```
enq -P molly-lp PCLFile1
```

Using an attributes file with the pdpr command: To print this example, enter this command on the command line:

```
pdpr -X pclex1.X -p molly-lp PCLFile1
```

where the attributes file named pclex1.X contains these settings:

```
document-format=pcl
    A data type of PCL
```

Printing a PCL file with a defined image size:

In this example, you will submit a PCL file called PCLFile2.pcl for printing on an InfoPrint printer called Dserv-lp. In addition, you will specify the form definition F100S and an image size of 9 inches in length and 6 inches in width, measured from the upper-left corner of the image.

Configuration assumptions: This example assumes these tasks have been performed by your system support group:

- InfoPrint, including the **pcl2afp** transform, has been installed on the workstation on which the **pcl2afp** command is executed.
- The **pcl2afpd** daemon has been started on the workstation on which the **pcl2afp** command is executed.
- A 3900 printer device has been installed and defined to InfoPrint. A logical printer called Dserv-lp routes jobs to the physical printer representing that device.

Using the command line options: To print this example, enter this command on the command line:

```
pdpr -p Dserv-lp -x "form-definition=F100S
    image-length=19i image-width=6i" PCLFile2.pcl
```

or on AIX

```
enq -P Dserv-1p -oformdef=F100S -o-19i -o-w6i PCLFile2.pcl
```

InfoPrint identifies the input data type as PCL without being told. InfoPrint automatically runs **pcl2afp**, and passes **-19i** and **-w6i** from the **enq** command to **pcl2afp**.

You can get the same result by piping the output of the **pcl2afp** command to the input of the **enq** command:

```
pcl2afp PCLFile2.pcl -19i -w 6i | enq -P Dserv-1p -oformdef=F100S
```

Using an attributes file with the pdpr command: To print this example, enter this command on the command line:

```
pdpr -X pclcx2.X -p Dserv-1p PCLFile2.pcl
```

where the attributes file named `pclcx2.X` contains these settings:

image-length=9i

Image length is nine inches

image-width=6i

Image width is six inches

form-definition=F100S

Use the F100S formdef for printing the job

Printing a PCL file at 300-pel resolution:

In this example, you will submit a PCL file called `PCLFile3.pcl` for printing on an InfoPrint printer called `G4019-Serv1`. In addition, you will specify a resolution of 300 pels.

Configuration assumptions: This example assumes these tasks have been performed by your system support group:

- InfoPrint, including the **pcl2afp** transform, has been installed on the workstation on which the **pcl2afp** command is executed.
- The **pcl2afpd** daemon has been started on the workstation on which the **pcl2afp** command is executed.
- The 4019 printer has been installed and defined to AIX. A logical printer, named `G4019-Serv1`, has been configured to route jobs to the physical printer representing the 4019.

Using the command line options: To print this example, enter this command on the command line:

```
pdpr -o G4019-Serv1 -x "default-printer-resolution=300" PCLFile3.pcl
```

or on AIX

```
enq -P G4019-Serv1 -o-r300 PCLFile3.pcl
```

InfoPrint determines that the input data type is PCL and automatically runs **pcl2afp**, passing **-r300** from the **enq** command to **pcl2afp**.

You can get the same result by piping the output of the **pcl2afp** command to the input of the **enq** command:

```
pcl2afp PCLFile3.pcl -r 300 | enq -P G4019-Serv1
```

Using an attributes file with the pdpr command: To print this example, enter this command on the command line:

```
pdpr -X pcl3.X PCLFile3.pcl
```

where the attributes file named `pcl3.X` contains these settings:

document-format=pcl

A data type of PCL

default-printer-resolution=300

Image resolution is 300 pels

printer-name-requested=G4019-Serv1

Submit the job to the G4019-Serv1 logical printer

Printing a PCL file with a custom configuration file:

In this example, you will submit a PCL file called `PCLFile4.pcl` for printing on an InfoPrint printer called `molly-lp`. In addition, you will specify the form definition `F100D`, as well as a customized PCL configuration file called `custom.cfg`, which is located in the directory

For AIX

```
/usr/lpp/psf/pcl2afp
```

For Windows

```
install_path\pcl2afp
```

The output file name is `PCLFile4.afp`.

Configuration assumptions: This example assumes these items have been done by your system support group:

- InfoPrint, including the **pcl2afp** transform, has been installed on the workstation on which the **pcl2afp** command is executed.
- The **pcl2afpd** daemon has been started on the workstation on which the **pcl2afp** command is executed.
- A 3825 printer device has been installed and defined to InfoPrint. A logical printer called `molly-lp` routes jobs to the physical printer representing that device.
- The customized configuration file is `custom.cfg`, located in the **pcl2afp** directory; and you have permission to read this file.

Using the command line options: To print this example, enter this command on the command line:

For AIX

```
pdpr -p molly-lp -x "form-definition=F100D
other-transform-options='-o-C/usr/lpp/psf/pcl2afp/custom.cfg'"
PCLFile4.pcl
```

or

```
enq -P molly-lp -oformdef=F100D
-o-C/usr/lpp/psf/pcl2afp/custom.cfg PCLFile4.pcl
```

For Windows

```
install_path\pcl2afp\custom.cfg
```

InfoPrint determines the data type, automatically runs **pcl2afp**, and passes:

For AIX

-C/usr/lpp/psf/pc12afp/custom.cfg to **pc12afp** (When you use the -C flag with an AIX print command, no spaces are allowed between the -C flag and the configuration file name, and the configuration file name must be fully qualified).

For Windows

-C *install_path*\custom.cfg

On AIX, you can get the same result by invoking **pc12afp** first, then using **enq** to process the output of **pc12afp**:

```
pc12afp PCLFile4.pcl -o PCLFile4.afp -C /usr/lpp/psf/pc12afp/custom.cfg
enq -P molly-lp -ofordef=F100D PCLFile4.afp
```

Using an attributes file with the pdpr command: To print this example, enter this command on the command line:

```
pdpr -X pclx4.X PCLFile4.pcl
```

where the attributes file named *pclx4.X* contains these settings:

For AIX:

document-format=pc1

A data type of PCL

other-transform-options='-C /usr/lpp/psf/pc12afp/custom.cfg'

Use the /usr/lpp/psf/pc12afp/custom.cfg **pc12afp** configuration file

form-definition=F100D

Use the F100D form definition for printing the job

printer-name-requested=molly-lp

Submit the job to the molly-lp logical printer

For Windows:

document-format=pc1

A data type of PCL

other-transform-options='-C *install_path*\pc12afp\custom.cfg'

Use the *install_path*\pc12afp\custom.cfg configuration file

form-definition=F100D

Use the F100D form definition for printing the job

printer-name-requested=molly-lp

Submit the job to the molly-lp logical printer

Transforming three PCL files at the same time:

In this example, you will transform three PCL files to create one AFP data stream file. The PCL files are called PCLFile5.pcl, PCLFile6.pcl, and PCLFile7.pcl. You write the output of the transform to the file called PCLFile0.afp. Another option you might want to specify is an image type of **IM1**.

Configuration assumptions: This example assumes these tasks have been performed by your system support group:

- InfoPrint, including the **pc12afp** transform, has been installed on the workstation on which the **pc12afp** command is executed.

- The **pcl2afpd** daemon has been started on the workstation on which the **pcl2afp** command is executed.

Using the command line options: To transform this example, enter this command on the command line:

```
pcl2afp -aim1 PCLFile5.pcl PCLFile6.pcl PCLFile7.pcl -oPCLFile0.afp
```

Transforming an HP-GL/2 file:

Because the **pcl2afp** transform does not accept HP-GL/2 directly as input, you can use the **-c** flag to concatenate some sample PCL files that allow the HP-GL/2 file to be processed. To transform the HP-GL/2 file `myfile.gl` into a MO:DCA-P data stream file `myfile.afp`, enter:

For AIX

```
pcl2afp -o myfile.afp -c /usr/lpp/psf/pcl2afp/gl_before.pcl
myfile.gl /usr/lpp/psf/pcl2afp/gl_after.pcl
```

For Windows

```
pcl2afp -o myfile.afp -c install_path\pcl2afp\gl_before.pcl
myfile.gl install_path\pcl2afp\gl_after.pcl
```

The **-c** flag concatenates the three input files, making `myfile.gl` appear as a PCL file that includes HP-GL/2 commands.

Files

For AIX:

```
/usr/lpp/psf/pcl2afp/sample.pcl
PCL sample program

/usr/lpp/psf/bin/pcl2afp
Transform program

/usr/lpp/psf/bin/pcl2afpd
PCL daemon

/usr/lpp/psf/bin/pcl6
PCL interpreter program

/usr/lpp/psf/pcl2afp/pcl2afp.cfg
PCL pcl2afp command configuration file

/usr/lpp/psf/pcl2afp/pcl2afpd.cfg
PCL pcl2afpd daemon configuration file

/usr/lpp/psf/pcl2afp/pclp2____f.fco
PCL fonts file

/usr/lpp/psf/pcl2afp/plug____i.fco
Plugins file

/usr/lpp/psf/pcl2afp/wd____g.fco
WingDings font file

/var/psf/pcl2afp
Work directory for PCL transform

/usr/lpp/psf/pcl2afp/LPR0Y00C.ONE
Line Printer font file
```

For Windows:

install_path\pcl2afp\sample.pcl
PCL sample program

install_path\bin\pcl2afp.exe
Transform program

install_path\bin\pcl2afpd.exe
PCL daemon

install_path\bin\pcl6.exe
PCL interpreter program

install_path\pcl2afp\pcl2afp.cfg
PCL **pcl2afp** command configuration file

install_path\pcl2afp\pcl2afpd.cfg
PCL **pcl2afpd** daemon configuration file

install_path\pcl2afp\pclp2____.fco
PCL fonts file

install_path\pcl2afp\plug____.i.fco
Plugins file

install_path\pcl2afp\wd____.g.fco
WingDings font file

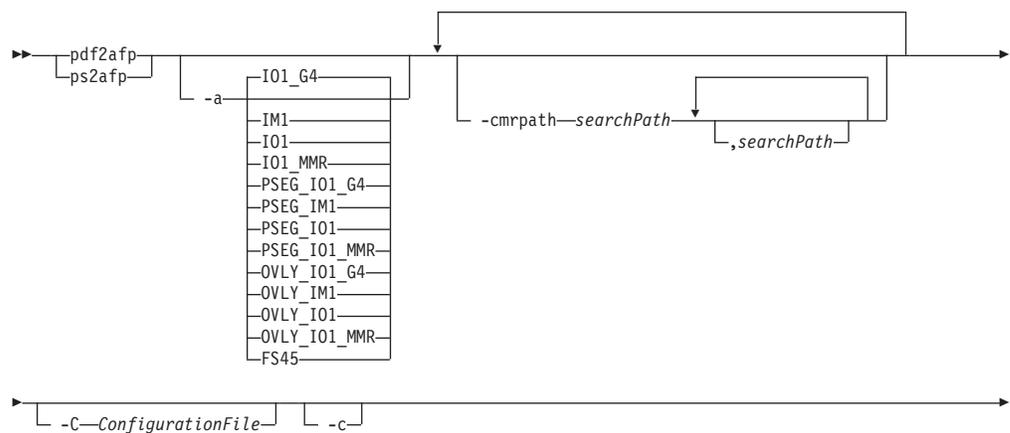
install_path\var\psf\pcl2afp
Work directory for PCL transform

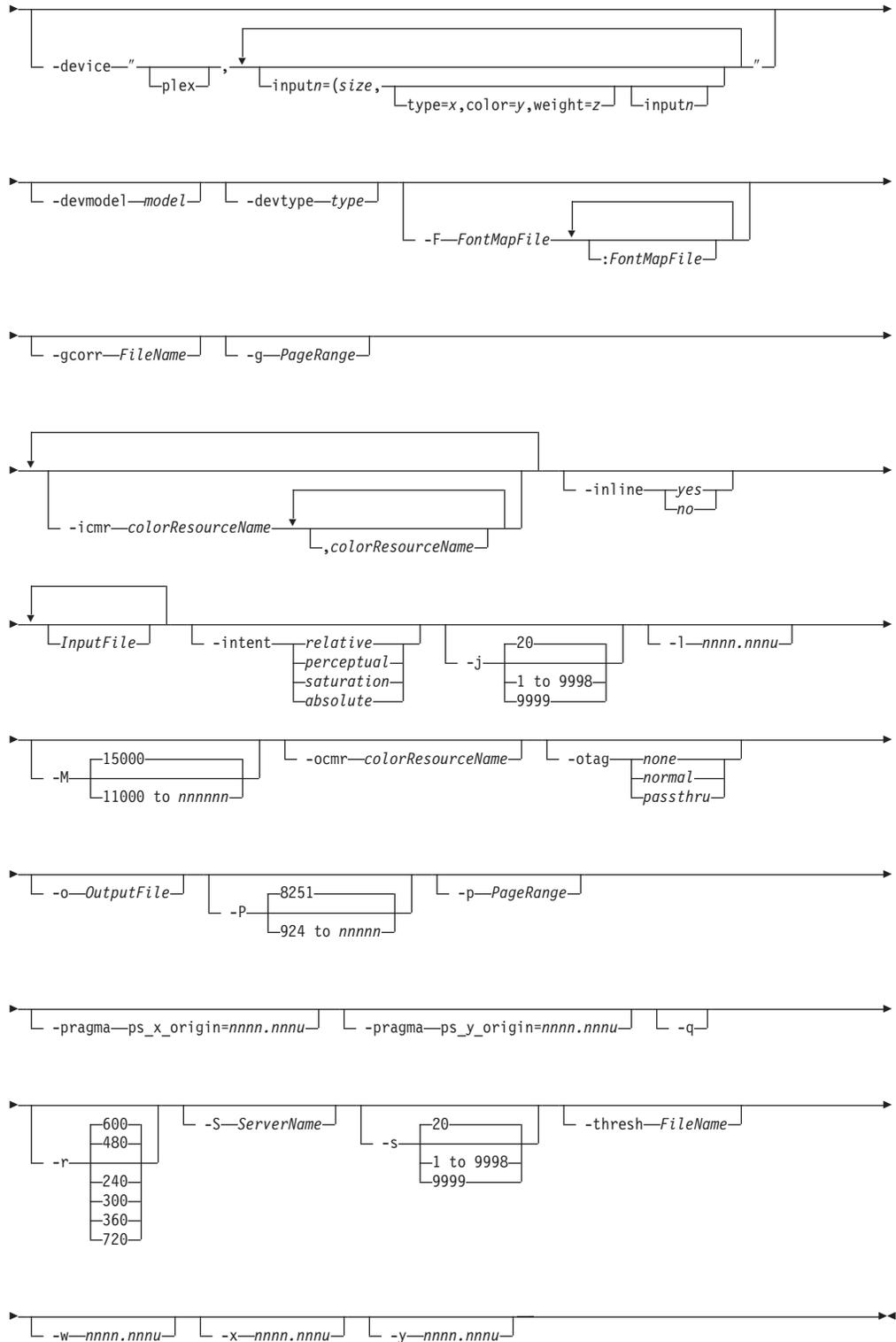
install_path\pcl2afp\LPR0Y00C.ONE
Line Printer font file

pdf2afp and ps2afp commands: transform PDF or PostScript data to AFP

Syntax

pdf2afp and ps2afp commands





Description

The **ps2afp** command and its alias, the **pdf2afp** command, transform a PostScript or Portable Document Format (PDF) data stream file into an AFP data stream file.

The PSF DSS runs the **ps2afp** command automatically whenever:

- InfoPrint identifies the format of a document in a print job as PostScript or PDF.
- You use the **pdpr** command to specify **document-format=postscript** or **document-format=pdf** with the **-x** flag or in an attributes file.
- You specify a data type of **-odatatype=ps** or **-odatatype=pdf** with an AIX print command (**enq**, **lp**, or **qprt**) or with the **lprafp** command.

If you specify multiple values of the same flag, **ps2afp** uses the last value specified, except for the **-F**, **-g**, and **-p**, flags. **ps2afp** concatenates multiple values of the **-F** flag from left-to-right (first entered to last entered). Multiple values of the **-g** and **-p** flags are accumulated and the pages identified for printing are printed in normal numerical sequence, regardless of the order you specify.

When using the **ps2afp** or **pdf2afp** command, you can specify an optional input file name. If you do not specify an input file name, **ps2afp** reads standard input. The output file name is also optional; if you do not specify one, the **ps2afp** command writes the results to standard output. Output from the **ps2afp** and **pdf2afp** transform contains binary encoded data that is not recognized by standard output devices such as an IBM AIX terminal session or a Microsoft Windows Command Prompt Window. For these standard output devices if an output file name is not specified, standard output should be redirected. For more information about redirecting output using either the greater than symbol (>) or the pipe symbol (|), see your operating system help or reference.

You can use the **ps2afp** command to specify both staple and punch finishing options.

For more information about these staple and punch options, see “Stapling and punch options available from the **ps2afp** transform” in the *InfoPrint Manager for AIX: Procedures* and the *InfoPrint Manager for Windows: Procedures*. You should consider these situations about the flags you can specify with the **ps2afp** or **pdf2afp** command:

1. When you run **ps2afp** or **pdf2afp** as a standalone transform, flags can appear anywhere on the command line with or without a blank in the flag and value pair.
When you specify **ps2afp** transform flags with the **other-transform-options** attribute, any string containing a blank must be surrounded by single quotes.
Do not use a blank between the flag and the value when you specify **ps2afp** transform flags with an AIX print command or with the **lprafp** command.
2. When you specify flags with the **ps2afp** or **pdf2afp** command, the command echoes them back to your display along with the settings for the flags. To suppress the command echoing, enter the **-q** (quiet) flag along with the **ps2afp** or **pdf2afp** command.
3. The PostScript or PDF file can contain the commands **letter** and **legal**. If these commands are present in the PostScript or PDF file, you might not get what you expect due to the interaction of the **letter** and **legal** commands with the **-l** and **-w** flags of the **ps2afp** or **pdf2afp** command.
4. The order in which **ps2afp** uses PostScript and PDF options is as follows:
 - a. The PostScript program commands **letter** and **legal**, if they are present.
 - b. Any options you specify on the command line with the **ps2afp** or **pdf2afp** command (for example, **-r300**), including values contained in the

customized configuration file you specify with the **ps2afp -C** or **pdf2afp** command. If you specify the same option more than once, InfoPrint uses the last value.

- c. Values contained in the configuration file, **ps2afp.cfg**, in the current directory, if you invoked **ps2afp** or **pdf2afp** directly. If you invoked **ps2afp** indirectly by requesting **enq -odatatype=ps**, or **enq -odatatype=pdf**, **ps2afp** ignores any configuration files in the current directory, and proceeds to step 4d.
- d. Values contained in the **ps2afp.cfg** file in the user's home directory.
- e. Values contained in the default **ps2afp** command configuration file:

For AIX

/usr/lpp/psf/ps2afp/ps2afp.cfg

For Windows

install_path\ps2afp\ps2afpd.cfg

- f. Values contained in the customized configuration file you specify with the **ps2afpd -C** command.
- g. Values contained in the default **ps2afpd** daemon configuration file:

For AIX

/usr/lpp/psf/ps2afp/ps2afpd.cfg

For Windows

install_path\ps2afp\ps2afpd.cfg

- h. Values contained in the **ps2afpd.cfg** file when **ps2afpd** was started.
 - i. The defaults that are built into **ps2afpd**. These defaults are the same as the defaults for the **ps2afp** flags, except that the default output type (**-a** flag) is an IM1 uncompressed image.
5. The position of PostScript or PDF data on the page depends on the interaction of the **-l** and **-w** flags, the **-x** and **-y** flags, and the form definition you use. In general, to position data on the page,
 - Use **-l** and **-w** to set the physical page dimensions.
 - Use a form definition that specifies zero vertical offset and zero horizontal offset (for example, **F100S**, **F100D**, or **F100T**) or specify X and Y offsets of 0 when you submit the print job.
 - Use **-x** and **-y** to avoid any areas that your printer cannot print.
 6. You can specify the **ps2afp** flags and values with the **ps2afp** or **pdf2afp** command, or with **enq -o**, **lp -o**, **qprt -o**, or **lprafp**. You can also specify equivalent attribute values with the **-x** flag or in an attributes file with the **pdpr** command.

Notes:

- a. If you are migrating from PSF for AIX, see Appendix B, "Migrating PSF for AIX job script keywords to InfoPrint equivalents," on page 1035 for a table of attributes equivalent to the job script keywords that you use to specify flags and values for transforms.
- b. When transforming PDF with color text that uses embedded font subsets to black and white or color AFP output, the rip processing can take longer. If you use **savevm=false**, this performance will improve. However, we recommend using the current default of **savevm=true** because in some cases, PDF input files with many embedded font subsets might fail to transform. The **savevm** option appears on the **ps2afp/pdf2afp** command line as: **-pragma pdf2psoptions=savevm=true**.

For more information about the **ps2afp** and **pdf2afp** transforms, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

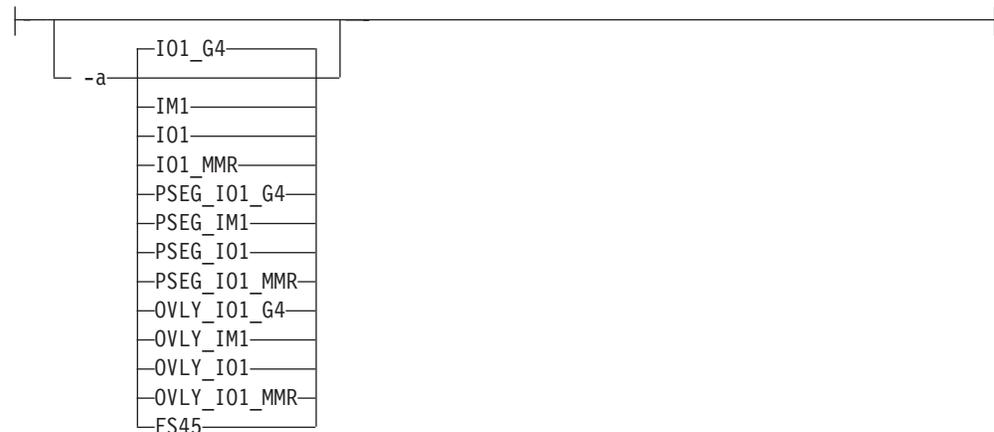
Automatic invocation

The PSF DSS automatically invokes the **ps2afp** or **pdf2afp** transform command whenever you submit a PostScript or PDF file for printing. You can pass options to **ps2afp** or **pdf2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **ps2afp** or **pdf2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-r 300**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking the **Transform Settings** page and entering them in the **Transform options**.

Limitations

- InfoPrint, including the **ps2afp** transform, must be installed, and the **ps2afpd** daemon must be running.
- PostScript data can contain device commands (for example, to begin or end duplexing or to change the input bin). Because the AFP architecture defines those device functions in a form definition resource instead of the print data, the **ps2afp** transform ignores the device commands in the print data. To access those device functions (such as duplexing and bin selection), you must specify them in the form definition or attributes file, or on a print command, when you print the job.
- Resolution conversion algorithms might yield degraded appearance when used to reduce the resolution of a data stream. For this reason, **ps2afp** might degrade the appearance of higher-resolution data streams when used with 240-pel printers. You should verify that print fidelity is satisfactory.
- The **ps2afp** and **pdf2afp** transforms contain no double byte character sets (CIDKeyed fonts) with Type1 fonts or TrueType fonts support on InfoPrint Manager for Windows.

Flags and values



- Determines the type of AFP data stream image to generate for each page in the PostScript or PDF file.

Values are:

I01_G4

- Compressed Image Object Content Architecture (IOCA) image in Modified TSS (formerly CCITT) T.6 G4 Facsimile Coding Scheme (G4 MMR) format. This is the recommended output type because it takes up less space on the fixed disk, and it prints faster. It is the default specified in the **ps2afpd** daemon and **ps2afp** command configuration files.

Note: The InfoPrint 3812 and 3816 printers do not support printing with an image type of **I01_G4**. For these printers, specify an image type of **I01_MMR** because it is the compressed image type supported by these printers. This will result in faster printing than uncompressed image types. PPDS, PCL, and TCP/IP-attached IPDS printers can print IOCA images.

IM1

IM1 image. This type of image is not compressed.

I01

IOCA image. This type of image is not compressed.

I01_MMR

Compressed IOCA image in Modified Modified Read (MMR) format.

PSEG_I01_G4
PSEG_IM1
PSEG_I01
PSEG_I01_MMR

- Page segment of the specified image type.

Note: When generating page segments from multiple-page documents, you might want to use the **-p** flag to select which page is to be made into a page segment; otherwise, multiple page segments will be created, one for each page of PostScript or PDF.

OVLY_I01_G4
OVLY_IM1
OVLY_I01
OVLY_I01_MMR

- Overlay of the specified image type.

Note: When generating overlays from multiple-page documents, you might want to use the **-p** flag to select which page is to be made into an overlay; otherwise, multiple overlays will be created, one for each page of PostScript or PDF.

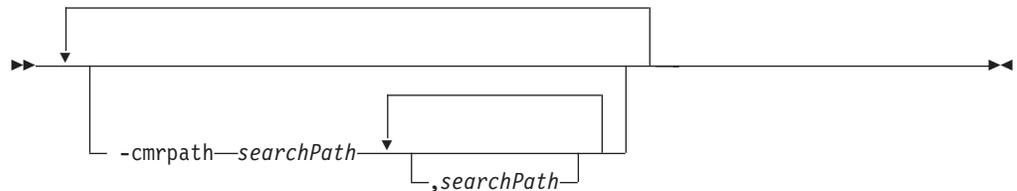
FS45 IOCA color format.

Note: FS45 is supported on InfoPrint Manager for AIX only after `install.color` has been activated.

FS45.ovly
IOCA color format for overlays.

FS45.pseg
IOCA color format for page segments.

This flag is similar to the **image-out-format** document attribute on the **pdpr** command.



- Specifies the search order for locating color resources. This search order is a series of directory paths that color resources are located in. If you specify two or more **-cmrpath** flags, InfoPrint will concatenate these search orders.



- Specifies the path and file name of the customized configuration file InfoPrint uses with the transform. If you specify the **-C** flag with an AIX print command (**enq**, **lp**, or **qprt**), or with the **lprafp** command, specify the fully qualified name of the file, including its path; for example:

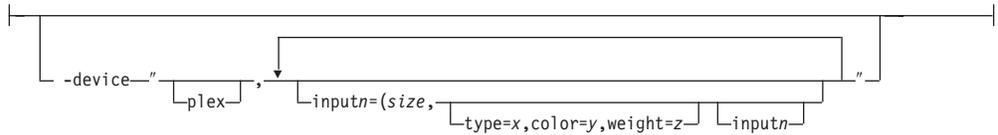
With AIX
`/usr/lpp/psf/ps2afp/myfile.cfg`

With Windows
`install_path\ps2afp\myfile.cfg`



- Concatenates multiple input files without putting a Ctrl-D (end of job) character between the files. The **ps2afp** command interprets the input files as a continuous data stream, and processes them as if they were one PostScript or PDF job. This flag can be useful when processing PostScript with inline resources. (See “Examples” on page 408). This flag only applies to the **ps2afp** command.

Note: Do not use this flag when you perform the data stream transform by submitting a print job with the **pdpr** command.



- Specifies whether to recognize plex mapping, and optionally, how to associate the AFP input tray (**inputn**) with the contents of the output bin. When you specify **inputn**, you must specify *size*, where *size* is a text string like letter, legal, a3, a4, b4, b5, ledger, or a dimension like 8.5x11i. Dimensions can be specified as inches (i), millimeters (m), or points (p). The other three input descriptors (**type**, **color**, and **weight**) are optional, but when you specify them, you must separate them with a comma and no spaces.

When you do not specify **inputn=...** with **plex**, InfoPrint recognizes plex mappings with no additional information for the tray contents.

Note: You can specify [**inputn=...** as many times as you need to.

- If only **input1** is specified, the width (**-w**) and length (**-l**) values must match the size of the media specified for **input1**. For example:

```
ps2afp test.ps -o test.afp -w 210m -l 297m -device 'plex, input1=(a4)'
```

If more than one input is specified, the **-w** and **-l** values must match one of the **inputn** size specifications. For example:

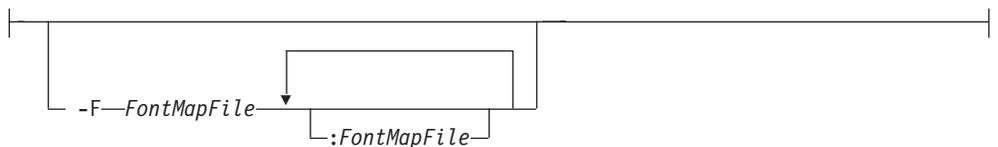
```
ps2afp test.ps -o test.afp -w 8.5i -l 11i -device 'plex, input1=(letter), input2=(a4)'
```



- Specify the device model of the actual device.



- Specify the device type of the actual device.



- Specifies the path and file name **ps2afp** uses for the font mapping file. This file correlates PostScript font names with their file locations. A font mapping file must exist on the AIX system where the **ps2afpd** daemon is running (specified by the **-S** flag).

You can include multiple values in the **-F** flag by separating each value with a colon (:). The files will be concatenated. When you specify multiple **-F** flags, **ps2afp** concatenates them from left-to-right (first entered to last entered) in that order.

The **-F** value overrides the **ps_font_map_files** value in the **ps2afp** configuration file and the **ps2afpd** configuration file. If you do not specify **-F**, **ps2afp** uses the font mapping file specified in the **ps2afp** command or **ps2afpd** daemon configuration file. By default, the **ps2afpd** daemon configuration file specifies the font mapping file as follows:

For AIX

`/usr/lpp/psf/ps/psfonts.map`

For Windows

`install_path\ps\fonts.map`

If you specify **-F** without a file name, or if the file does not exist, the **ps2afp** command does not work.

Note:

1. PostScript or PDF processing is slower when you use the **-F** flag, because the **ps2afpd** daemon must stop and re-start the PostScript interpreter. You can improve performance by changing the **ps_font_map_files** value in the **ps2afpd** daemon configuration file rather than using **-F** on a regular basis.
2. Specify the fully qualified name of the file if you specify the **-F** flag with an AIX print command.

`-gcorr—FileName—`

- Specifies a file with gray scale mapping table for halftoning of the gray scale and color images to bi-level for output. The mapping table must be provided to compensate for the printing characteristics of the particular output device and paper type, such as dot gain. This file must contain either:
 - 256 real numbers, one for each level of gray in the 8-bit gray scale image
 - The PostScript **settransfer** operator

The algorithm converts every image to 8-bit gray scale before applying the halftoning algorithm. The default internal mapping table has been optimized for the 600-peI InfoPrint 4000 laser printer. You shouldn't change this unless you know what you are doing. See also options **-alg** and **-thresh**. PostScript code submitted using the **-thresh** option can have the same effect as **-gcorr**.

`-g—PageRange—`

- Specifies that the output should only contain selected pages. When you specify multiple **-g** flags, the **ps2afp** command transforms only the specified pages in the PostScript or PDF input data stream, then prints the transformed pages in normal numerical order, regardless of the order you specify. Examples of values include:

-g even

Output even pages.

-g odd Output odd pages.

-g 1-10

Output pages 1 through 10.

-g 10- Output pages from page 10 until the end of the job.

-g 1 -g 3 -g 6

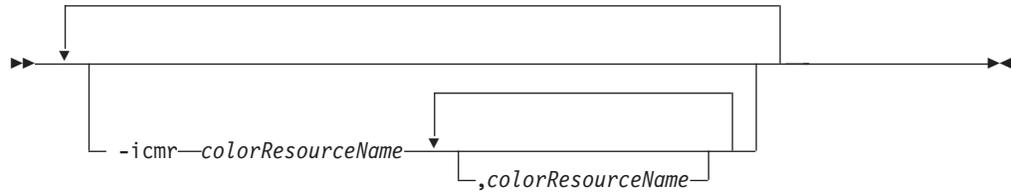
Output pages 1, 3, and 6, in that order.

-g1 -g6 -g3

Output pages 1, 3, and 6, in that order.

Note: You should only specify the **-g** flag when the input data conforms to Adobe Document Structuring Conventions (DSC). If you have any doubt about the input data, use the **-p** flag.

You cannot specify both the **-g** flag and the **-p** flag.



- Specifies one or more input or audit color resources. The color resources can be either ICC Profiles or Color Management Resources (CMRs). If you specify two or more **-icmr** flags on a transform command line, InfoPrint will concatenate the resources together. If two or more resources that are specified by the **-icmr** flags are for the same color space, InfoPrint will use the last specified resource.



- Specifies whether the output Color Management Resource (CMR) will be placed inline with the data stream. If you specify two or more **-inline** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies one or more input files to be transformed. If you specify more than one input file name, the **ps2afp** command concatenates the files and separates them with the Ctrl-D (end of job) character. The results of the transform are written to a single output file (if one is specified) or to standard output.

In addition, you can specify PostScript inline resource files as input files to the **ps2afp** command. The file name of the inline resource file must precede the file name of the PostScript or PDF print file so that **ps2afp** concatenates the files in the correct order.

If you do not specify an input file, **ps2afp** uses standard input. If the **ps2afp** command cannot read from standard input, **ps2afp** issues a message.

When using a **stdin** input file with the **ps2afp** or **pdf2afp** transform, you must identify the datatype for the input file as shown in these examples:

```
ps2afp -datatype ps -<tiger.ps> testtigr.afp
```

or

```
pdf2afp -datatype pdf -<lion.pdf> testlion.afp
```

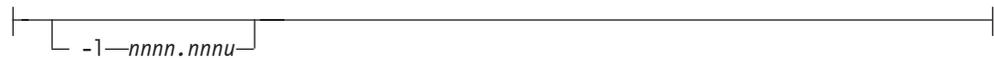


- Specifies the rendering intent. You can also use the **-pragma** option to specify the rendering intent by setting:
-pragma colorRendering=relative

If you specify two or more **-intent** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies the maximum amount of time, in minutes, to spend processing the job.
Values are:
20 20 minutes, the default
1 to 9998
The timer ranges from 1 to 9998 minutes, in one-minute increments
9999 No time limit



- Specifies the length of the generated image; *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **ps2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

Note: If a text margin is already built into the file, try **-11i** to set the length to 11 inches.

For 240-pel resolution printers, values are:

11i 11 inches, the default

16 to 12720

The length can be from 16 pels to 12720 pels, 0.065i to 53i, or 1.641m to 1346.2m. For example, these values are all valid:

```
-l 40m
-l 200.5m
-l 13i
-l 4000
```

For 300-pel resolution printers, values are:

11i 11 inches, the default

16 to 15900

The length can be from 16 pels to 15900 pels, 0.052i to 53i, or 1.313m to 1346.2m. For example, these values are all valid:

```
-l 40m
-l 200.5m
-l 13i
-l 5000
```

For 480-pel resolution printers, values are:

11i 11 inches, the default

16 to 25440

The length can be from 16 pels to 25440 pels, 0.065i to 53i, or 1.641m to 1346.2m. For example, these values are all valid:

- l 40m
- l 200.5m
- l 13i
- l 8000

For 600-pel resolution printers, values are:

11i 11 inches, the default

16 to 31800

The length can be from 16 pels to 31800 pels, 0.052i to 53i, or 1.313m to 1346.2m. For example, these values are all valid:

- l 40m
- l 200.5m
- l 13i
- l 10000

This flag is equivalent to the **image-length** document attribute on the **pdpr** command.



- Determines the maximum amount of memory, in KB, that the transform can use. This flag can be useful if you are processing large PostScript or PDF jobs that require a lot of memory.

Values are:

15000 15000KB (15MB)

11000 to nnnnnn

The maximum memory ranges from 11000 to *nnnnnn* (where *nnnnnn* is the maximum upper limit allowed by AIX) up to 999MB. 15000 is the default.



- Specifies an output color resource. The color resource can be either an ICC Profile or a Color Management Resource (CMR). If you specify two or more **-ocmr** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies how the output AFP will be tagged with color information. The allowed values are:

none There will be no tagging in the output AFP.

normal

InfoPrint will use the specified **-ocmr** value to tag the output AFP as an input (audit) Color Management Resource (CMR).

passthru

InfoPrint will use the specified **-ocmr** value to tag the output AFP as both an input (audit) CMR and an output (instruction) CMR.

If you specify two or more **-otag** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies the output path and file into which the transformed files are to be written. If more than one output file is specified, the last specified file name and path is the one used. If no output file is specified, the result is written to standard output. Output from the **ps2afp** and **pdf2afp** transform contains binary encoded data that is not recognized by standard output devices such as an IBM AIX terminal session or a Microsoft Windows Command Prompt Window. For these standard output devices if an output file name is not specified, standard output should be redirected. For more information about redirecting output using either the greater than symbol (>) or the pipe symbol (|), see your operating system help or reference.

You cannot use **-o OutputFile** on the command line with the **enq**, **lp**, **qprt**, or **lprafp** commands. You can only use **-o OutputFile** with the **ps2afp** command. You can also specify the **transform-output-file-name** document attribute on the **pdpr** command.



- Specifies the TCP/IP port number **ps2afp** uses to make a connection with the workstation on which the **ps2afpd** daemon is running (set by the **-S** flag). If your InfoPrint installation uses more than one PostScript daemon, use this flag to select the daemon.

This port should not be the same port used by the TCP/IP-attached IPDS printer or the PCL transform. To find out which ports are already being used on your system (although they might or might not be active), look in the **/etc/services** file.

Values are:

8251 The default port number.

924 to nnnnn

Any valid port number greater than or equal to 924. The maximum value, *nnnnn*, depends on AIX, but it must be equal to or less than 65535.

Note: You can only access secure ports, 924 to 1023, with **root** user authority.



- Specifies that the output should only contain selected pages. When you specify multiple **-p** flags, the **ps2afp** command transforms all the pages in the input, then extracts the specified MO:DCA-P pages and prints them in normal numerical order, regardless of the order you specify.

You cannot specify both the **-g** flag and the **-p** flag.

Examples of values include:

-p even

Output even pages.

-p odd

Output odd pages.

-p 1-10

Output pages 1 through 10.

-p 10- Output pages from page 10 until the end of the job.

-p 1 -p 3 -p 6

Output pages 1, 3, and 6, in that order.

-p1 -p6 -p3

Output pages 1, 3, and 6, in that order.

This flag is equivalent to the **page-select** document attribute on the **pdpr** command.

```
-pragma-ps_x_origin=nnnn.nnnu
```

Specifies an X presentation page origin of the generated image; *nnnn.nnnu* is a number that can optionally contain a decimal point, and *u* is the units in inches (i) or millimeters (m). If you do not specify a unit (i or m), **ps2afp** uses pels as the unit type. You cannot specify fractional values, that is, you cannot use a decimal point, for pels. If this value is unspecified, zero is presumed.

```
-pragma-ps_y_origin=nnnn.nnnu
```

Specifies an Y presentation page origin of the generated image; *nnnn.nnnu* is a number that can optionally contain a decimal point, and *u* is the units in inches (i) or millimeters (m). If you do not specify a unit (i or m), **ps2afp** uses pels as the unit type. You cannot specify fractional values, that is, you cannot use a decimal point, for pels. If this value is unspecified, zero is presumed.

```
-q
```

Quiets (suppresses) the echoing of the **ps2afp** command to the display.

```
-r
  600
  480
  240
  300
  360
  720
```

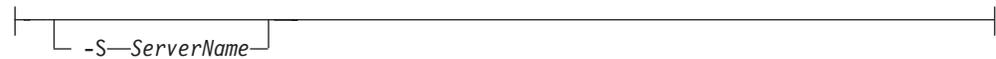
- Specifies the resolution of the output image. Select the resolution based on the printer on which you will be printing the image.

Values are:

- 240** 240 pels-per-inch (for example, InfoPrint 3812, 3825, 3827, 3835, and 3900 printers).
- 300** 300 pels-per-inch (for example, InfoPrint 4019, 4028, 4029, and 4039 printers and Hewlett-Packard printers)
- 360** 360 pels-per-inch (for example, InfoPrint 5000 printers)
- 480** 480 pels-per-inch
- 600** 600 pels-per-inch (for example, InfoPrint 3900 printers), the default
- 720** 720 pels-per-inch (for example, InfoPrint 5000 printers)

This flag is equivalent to the **default-printer-resolution** document attribute on the **pdpr** command.

Note: If you specify a resolution that the printer does not support, InfoPrint will print the image under most conditions, but with degraded results. Specify the correct resolution for the printer on which you will print the job.



- Specifies the name of the AIX system on which the **ps2afpd** daemon is running. If you do not specify this flag, the *ServerName* defaults to the effective name of the workstation on which you issued the **ps2afp** command. The value is:

ServerName

Any valid AIX workstation name on which the **ps2afpd** daemon is installed and running. The name is defined in the `/etc/hosts` file or by a name server, and can be a nickname like **molly**, or a dotted decimal address like **9.99.9.23**.



- Specifies the maximum amount of time, in minutes, that the PostScript interpreter remains idle between jobs before it goes down. When the PostScript interpreter is running, it uses some of the workstation memory. If the PostScript interpreter goes down, you do not need to bring it back up; the interpreter automatically starts when you submit another PostScript or PDF job as long as the **ps2afpd** daemon is running.

Values are:

20 The default time is 20 minutes.

1 to 9998

The time is the number of minutes specified in one-minute increments.

9999 There is no time limit.

`-thresh—FileName—`

Specifies a file that contains a PostScript Type 1 or Type 3 halftone dictionary. Alternatively, the PostScript code can specify the **setscreen** operator instead of a Type 1 dictionary. The halftone cell in the dictionary is used to overwrite the default ordered dither clustered dot halftone cell. If the PostScript code contains a transfer function, either in the halftone dictionary or specified by the **settransfer** operator, the current grayscale correction curve is overwritten as if **-gcorr** were used.

`-w—nnnn.nnnu—`

- Specifies the width of the generated image; *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **ps2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

Note: If a text margin is already built into the file, try **-w8.5i** to set the width to 8.5 inches.

For 240-pel resolution printers, values are:

8.5i 8.5 inches, the default

16 to 10200

The width can be from 16 pels to 10200 pels, 0.052i to 34i, or 1.313m to 863.628m. For example, these values are all valid:

```
-w 40m
-w 200.5m
-w 13i
-w 5000
```

For 300-pel resolution printers, values are:

8.5i 8.5 inches, the default

16 to 10200

The width can be from 16 pels to 10200 pels, 0.052i to 34i, or 1.313m to 863.628m. For example, these values are all valid:

```
-w 40m
-w 200.5m
-w 13i
-w 5000
```

For 600-pel resolution printers, values are:

8.5i 8.5 inches, the default

16 to 20400

The width can be from 16 pels to 20400 pels, 0.052i to 34i, or 1.313m to 863.628m. For example, these values are all valid:

```
-w 40m
-w 200.5m
-w 13i
-w 5000
```

This flag is equivalent to the **image-width** document attribute on the **pdpr** command.

`-x—nnnn.nnnu`

- Specifies an X offset (horizontal offset) of the generated image; *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **ps2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

An offset value specifies a border or margin around the generated image to avoid the non-printable areas of some printers. An X-offset value specifies the left and right margins of the generated image.

Values are:

0 No border is specified. This is the default.

0 to 17i

The value specified here must be less than half of the width (**-w**) flag. For example, if you specified **-w=12i**, this value can be no greater than **6i**.

This flag is equivalent to the **x-image-shift** document attribute on the **pdpr** command.

Notes:

1. The X offset specified with **-x** must be less than half the width specified with **-w**. If the **-x** value is greater than or equal to the **-w** value, a blank page is printed.
2. The X-offset value specifies margins on both the left and right sides of the page. If you have a width of 8.5 inches and specify an X offset of 5 inches, a blank page will also result because the margins on the left and right sides of the paper exceed the width of the paper.
3. PostScript or PDF processing is slower when you use the **-x** flag, because the **ps2afpd** daemon must stop and re-start the PostScript interpreter. You can improve performance by changing the **ps_x_offset** value in the **ps2afpd** daemon configuration file rather than using **-x** on a regular basis.

`-y—nnnn.nnnu`

- Specifies a Y offset (vertical offset) of the generated image; *nnnn.nnn* is a number that can optionally contain a decimal point, and *u* is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit (**i** or **m**), **ps2afp** uses pels as the unit type. You cannot specify fractional values (that is, you cannot use a decimal point) for pels.

An offset value specifies a border or margin around the generated image to avoid the non-printable areas of some printers. A Y-offset value specifies the top and bottom margins of the generated image.

Values are:

0 No border is specified. This is the default.

0 to 17i

The Y offset must be less than half of the length (**-l** flag) of the generated image. For example, if you specified **-l=16i**, this value can be no greater than **8i**.

This flag is equivalent to the **y-image-shift** document attribute on the **pdpr** command.

Notes:

1. The Y offset specified with **-y** must be less than the half of the length specified with **-l**. If the **-y** value is greater than or equal to the **-l** value, a blank page is printed.
2. The Y offset value specifies margins on *both* the top and bottom edges of the page. If you have a length of 11 inches and specify an Y offset of 6 inches, a blank page will also result because the margins on the top and bottom of the paper exceed the length of the paper.
3. PostScript or PDF processing is slower when you use the **-y** flag, because the **ps2afpd** daemon must stop and re-start the PostScript interpreter. You can improve performance by changing the **ps_y_offset** value in the **ps2afpd** daemon configuration file rather than using **-y** on a regular basis.

The **ps2afp** and **ps2afpd** configuration files

Instead of typing flags on the command line with the **ps2afp** or **pdf2afp** command, you can use the **-C** flag to specify a configuration file that contains the flags. In this way, you can simply specify a configuration file name, rather than typing many flags. You might find it convenient to use a configuration file if you repeatedly use the same flags with the **ps2afp** or **pdf2afp** command, or if you are using different PostScript or PDF processing values than the defaults defined by your system support group.

When your system support group installed the **ps2afp** transform and its alias, **pdf2afp**, a default **ps2afp** command configuration file, **ps2afp.cfg**, was installed in this directory:

With AIX

/usr/lpp/psf/ps2afp

With Windows

install_path\ps2afp

To create your own files, copy the **ps2afp.cfg** file and then use a system editor to modify the options in this ASCII file to suit your needs.

A default **ps2afpd** daemon configuration file, **ps2afpd.cfg**, was also installed in this directory:

With AIX

/usr/lpp/psf/ps2afp

With Windows

install_path\ps2afp

The **ps2afpd** daemon configuration file can contain most of the same keywords as the **ps2afp** command configuration file, plus some keywords that control the operation of the **ps2afpd** daemon. Values in the command configuration file override values in the daemon configuration file.

Figure 9 on page 405 shows an example of a configuration file.

```

# ps2afp configuration file

# KEYWORD          EQUIVALENT ps2afp FLAG          PURPOSE
#####

port = 8251         # -P          which TCP/IP port to use
server = 127.0.0.1 # -S          which server to connect with

ps_max_memory = 14000K # -M          maximum amount of memory that
#                  #                  PostScript uses; the 'K' is ignored

ps_job_timeout = 20 # -j          maximum number of minutes
#                  #                  to process PostScript job

ps_server_timeout = 20 # -s          maximum number of minutes
#                  #                  server waits between jobs

ps_width = 8.5i    # -w          width of generated image
ps_length = 11i    # -l          length of generated image
ps_x_offset = 0i   # -x          left and right margins
ps_y_offset = 0i   # -y          top and bottom margins
ps_resolution = 600 # -r          resolution of printer
ps_output_type = I01_G4 # -a          type of AFP image to generate

```

Figure 9. Sample ps2afp Configuration File

Table 14 shows the **ps2afp** flags and their equivalent configuration file keywords. To override the values in the default configuration file, **ps2afp.cfg**, you can do one of these actions:

- Specify flags with the **ps2afp** or **pdf2afp** command at transform time.
- Specify a configuration file with **ps2afp -C** at transform time.
- Specify **ps2afp** flags with **-o** flags on an AIX print command, or with equivalent attributes with the **-x** flag or in an attributes file on the **pdpr** command, to transform a file and print it at the same time.

Note: If you are migrating from PSF for AIX, see Appendix B, “Migrating PSF for AIX job script keywords to InfoPrint equivalents,” on page 1035 for a table of attributes equivalent to the job script keywords that you use to specify flags and values for transforms.

Table 14. PostScript and PDF printing and processing options

<i>ps2afp</i> or <i>pdf2afp</i> Flag	<i>Keyword in ps2afp and ps2afpd Configuration Files</i>
Note: The valid values for configuration file keywords are the same as for the corresponding ps2afp or pdf2afp command flag. For keywords used only in the ps2afpd daemon configuration file, which have no corresponding command flag, see “ps2afpd utility: starts the ps2afpd daemon” on page 233.	
-a <i>OutputType</i>	ps_output_type=value
-C <i>ConfigurationFile</i>	None
-c	None

Table 14. PostScript and PDF printing and processing options (continued)

ps2afp or pdf2afp Flag	Keyword in ps2afp and ps2afpd Configuration Files
<p><code>-device</code></p>	<p><code>device_control=plex,</code></p> <p><code>inputn=(size, type=x,color=y,weight=z)</code></p> <p><code>inputn=(size, type=x,color=y,weight=z)</code></p> <p><code>inputn=()</code></p>
<p><code>-F FontMapFile</code></p>	<p><code>ps_font_map_file=PathName</code></p>
<p><code>-g PageRange</code></p>	<p>None</p>
<p><code>InputFile</code></p>	<p>None</p>
<p><code>-j nnnn</code></p>	<p><code>ps_job_timeout=nnnn</code></p>
<p><code>-l nnnn.nnnu</code></p>	<p><code>ps_length=nnnn.nnnu</code></p>
<p><code>-M nnnnn</code></p>	<p><code>ps_max_memory=nnnnn</code></p>
<p><code>-o OutputFile</code></p>	<p>None</p>

Table 14. PostScript and PDF printing and processing options (continued)

<i>ps2afp or pdf2afp Flag</i>	<i>Keyword in ps2afp and ps2afpd Configuration Files</i>	
-P <i>nnnnn</i>	port= <i>PortNumber</i>	
-p <i>PageRange</i>	None	
-pragma ps_x_origin <i>nnnn.nnnu</i>	-pragma ps_x_origin= <i>nnnn.nnnu</i>	
-pragma ps_y_origin <i>nnnn.nnnu</i>	-pragma ps_y_origin= <i>nnnn.nnnu</i>	
-q	None	
-r <i>nnn</i>	-ps_resolution= <i>nnn</i>	
-S <i>ServerName</i>	<i>Keyword in ps2afp Configuration File</i>	<i>Keyword in ps2afpd Configuration Files</i>
	server= <i>ServerName</i>	None
-s <i>nnnn</i>	<i>Keyword in ps2afp and ps2afpd Configuration Files</i>	
	-ps_server_timeout= <i>nnnn</i>	
-w <i>nnnn.nnnu</i>	-ps_width= <i>nnnn.nnnu</i>	
-x <i>nnnn.nnnu</i>	-ps_x_offset= <i>nnnn.nnnu</i>	
-y <i>nnnn.nnnu</i> -y <i>nnnn.nnnu</i>	-ps_y_offset= <i>nnnn.nnnu</i>	
None	<i>Keyword in ps2afp Configuration File</i>	<i>Keyword in ps2afpd Configuration Files</i>
	None	log_file= <i>PathName</i>
None	None	mail_command= <i>PathName</i>
None	None	notify= <i>UserID</i>

Table 14. PostScript and PDF printing and processing options (continued)

<i>ps2afp</i> or <i>pdf2afp</i> Flag	<i>Keyword in ps2afp and ps2afpd Configuration Files</i>	
None	None	—ps_init_file=PathName———
None	None	—ps_program=PathName———
None	None	—ps_support_program=PathName———
None	None	—work_directory=PathName———

Examples

- To submit the PostScript file `sample.ps` to the logical printer named `molly-lp`, enter:

For AIX

```
enq -Pmolly-lp -odatat=ps /usr/lpp/psf/ps2afp/sample.ps
```

For Windows

```
pdpr -pmolly-lp install_path\ps\sample.ps
```

- To transform the PDF file `myfile1` into an AFP data stream, and then submit it to the InfoPrint logical printer called `robin-lp`, enter:

or

```
pdpr -p robin-lp -x "default-printer-resolution=300" myfile1
```

or

```
pdf2afp -r300 myfile1 | pdpr -p robin-lp
```

Note: You need to specify a resolution of 300 pels (`default-printer-resolution=300` or `-r300`) because `robin-lp` routes jobs to a 4019 printer device. The 4019 printer is a 300-pel resolution printer and the default resolution for the **pdf2afp** command is 600 pels.

- To transform the PostScript file `myfile2` into an AFP data stream, with an image that is 8 inches high and 5 inches wide, and write the result to a file called `myfile2.afp`, enter:

```
ps2afp -l 8i -w 5i -o myfile2.afp myfile2
```

or

```
ps2afp -l 8i -w 5i myfile2 > myfile2.afp
```

- To transform the PostScript file `myfile2` into an AFP data stream, creating a compressed IO (IOCA) image (the default image type for the **ps2afp** command), and piping the result to the **pdpr** command to submit the file to the InfoPrint logical printer called `molly-lp`, enter:

```
ps2afp myfile2 | pdpr -p molly-lp
```

You can get the same result without piping (that is, using **pdpr** directly) by entering:

```
pdpr -p molly-lp myfile2
```

- To transform the PDF `myfile1` file into an AFP data stream in 300-pel resolution, as an IO1_MMR image, and send the result to the printer with the **pdpr** command, enter:

```
pdf2afp -aIO1_MMR -r300 myfile1 | pdpr -X myafp.X  
or  
pdpr -X myps.X myfile1
```

where the attributes file named `myafp.X` contains these settings:

```
document-format=modca-p  
printer-name-requested=david-1p
```

and the attributes file named `myps.X` contains these settings:

```
document-format=pdf  
printer-name-requested=david-1p  
image-out-format=io1_mmr  
default-printer-resolution=300
```

- Assume that the PostScript file `myfile2` uses the **BarKode.pfa** font that is a PostScript resource not installed for use by the **ps2afpd** on an AIX system named `robin`. Also assume that the **ps2afpd** daemon is running on `robin`, but you are logged into the AIX system named `molly`. To transform `myfile2` into an AFP data stream, but not print it:

```
ps2afp -S robin -c -o myfile2.afp BarKode.pfa myfile2
```

The `-c` flag concatenates the two input files, with the file `BarKode.pfa` first, so that the two files are processed together. In this way, `myfile2` uses `BarKode.pfa` as an inline resource.

- To create an FS45 overlay from a one-page PostScript file named `my.ps` and name the FS45 overlay `my.ovly`, enter:

```
ps2afp -a fs45.ovly -p1 my.ps -o my.ovly
```

Note: FS45 is supported on InfoPrint Manager for AIX only after `install.color` has been activated.

- To create an FS45 page segment from an existing page segment named `logo.pseg` and name the FS45 page segment `logofs45.pseg`, enter:

```
ps2afp -a fs45.pseg logo.pseg -o logofs45.pseg
```

Note: FS45 is supported on InfoPrint Manager for AIX only after `install.color` has been activated.

Files

For AIX:

/usr/lpp/psf/bin/ps2afpd
PostScript daemon

/usr/lpp/psf/bin/ps2afp
PostScript transform executable

/usr/lpp/psf/bin/pdf2afp
PDF transform executable (linked to **/usr/lpp/psf/bin/ps2afp**)

/usr/lpp/psf/ps2afp/ps2afpd.cfg
ps2afpd daemon configuration file

/usr/lpp/psf/ps2afp/ps2afp.cfg
ps2afp command configuration file

/usr/lpp/psf/bin/ps2afpi
PostScript Level 3 interpreter program

/usr/lpp/psf/bin/ps2afpi.vm
PostScript interpreter program initial virtual memory

/usr/lpp/psf/ps2afp/ps2afp.ps
PostScript initialization file

/usr/lpp/psf/ps2afp/ps2afpe.ps
PostScript initialization file for extended error reporting

/usr/lpp/psf/psfonts.map
Default PostScript font mapping file

/var/psf/psfonts
User-defined PostScript fonts file

For Windows:

install_path\bin\ps2afpd.exe
PostScript daemon

install_path\bin\ps2afp.exe
PostScript transform executable

install_path\bin\pdf2afp.exe
PDF transform executable

install_path\ps2afp\ps2afpd.cfg
ps2afpd daemon configuration file

install_path\ps2afp\ps2afp.cfg
ps2afp command configuration file

install_path\bin\ps2afpi.exe
PostScript Level 3 interpreter program

install_path\bin\ps2afpi.vm
PostScript interpreter program initial virtual memory

install_path\ps2afp\ps2afp.ps
PostScript initialization file

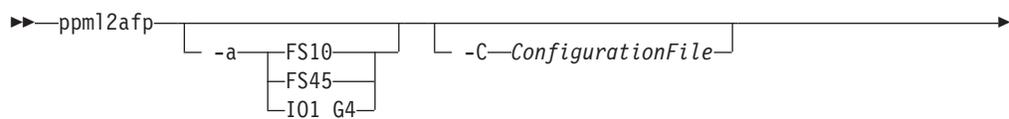
install_path\ps\fonts.map
Default PostScript font mapping file

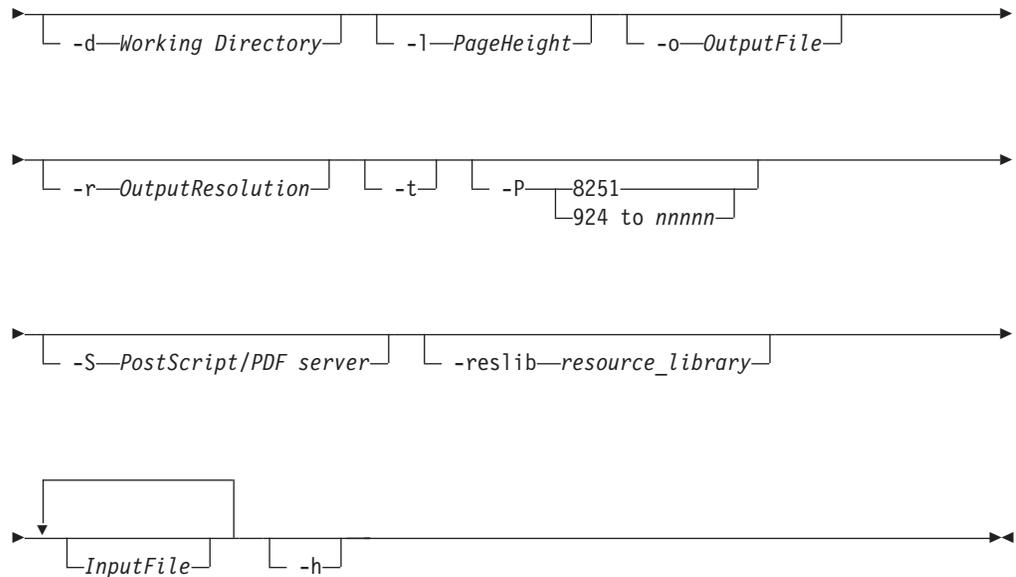
install_path\var\psf\psfonts
User-defined PostScript fonts file

ppml2afp transform: transforms PPML data to AFP

Syntax

ppml2afp command





Description

The **ppm2afp** command transforms a Personalized Print Markup Language (PPML) data stream file into an AFP data stream file.

The PSF DSS runs the **ppm2afp** command automatically whenever:

- InfoPrint identifies the format of a document in a print job as PPML.
- You use the **pdpr** command to specify **document-format=ppml** with the **-x** flag or in an attributes file.
- You specify a data type of **-odatatype=ppml** with an AIX print command (**enq**, **lp**, or **qprt**) or with the **lprafp** command.

For more information about the **ppm2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Note: The **ppm2afp** transform includes software developed by the Apache Software Foundation (<http://www.apache.org>).

Automatic invocation

The PSF DSS automatically invokes the **ppm2afp** transform command whenever you submit a PPML file for printing. You can pass options to **ppm2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **ppm2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-a FS10**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**.

Flags and values



- Specifies the output data format.

Values are:

FS10, IO1_G4

Used for black and white printers.

FS45 Used for color printers.



- Specifies the path and file name of the customized configuration file InfoPrint uses with the transform. The configuration file contains option-value pairs. If you specify multiple **-C** options on the command line, the configuration files are processed in the order that you specify them.

If you specify the **-C** flag with an AIX print command (**enq**, **lp**, or **qprt**), or with the **lprafp** command, specify the fully qualified name of the file, including its path; for example:

- **With AIX**

`/usr/lpp/psf/ppml2afp/ppml2afp.cfg`

- **With Windows**

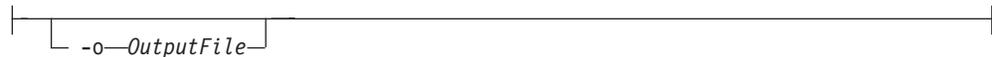
`install_path\ppml2afp\ppml2afp.cfg`



Specifies the name of a directory where the **ppml2afp** command can store files. By default, the *Working Directory* is `/var/psf/ppml2afp` for InfoPrint Manager for AIX and `install_path\var\psf\ppml2afp` for InfoPrint Manager for Windows.



Specifies the height or length of the page in positive numbers.



- Specifies the output path and file into which the transformed files are to be written. If you do not specify the **-o** flag, InfoPrint writes the results to standard output.

You cannot use **-o** *OutputFile* on the command line with the **enq**, **lp**, **qprt**, or **lprafp** commands. You can only use **-o** *OutputFile* with the **ppml2afp** command. You can also specify the **transform-output-file-name** document attribute on the **pdpr** command.

This flag is equivalent to the **transform-output-file-name** document attribute on the **pdpr** command.



- Specifies one or more input files to be transformed. The input file can be either a PPML source file or a PPML zip package. When **ppml2afp** opens a PPML zip file, it looks for a PPML source file with a PPML suffix; for example, it looks for `test.ppml`.

If more than one PPML file is found, **ppml2afp** uses the first one found in the zip file's directory. Then it extracts all the resources into directories that are meant to be relatively referenced. The relatively referenced resources are placed under the working directory/unique subdirectory path. Then **ppml2afp** processes the PPML source file and refers to the absolutely or relatively placed resources.

If you do not specify an input file, **ppml2afp** uses standard input.



Stores the **trace.log** in the working directory.



Runs the help option.

The **ppml2afp** configuration file

Instead of typing flags on the command line with the **ppml2afp** command, you can use the **-C** flag to specify a configuration file that contains the flags. In this way, you can simply specify a configuration file name, rather than typing many flags. You might find it convenient to use a configuration file if you repeatedly use the same flags with the **ppml2afp** command, or if you are using different processing values than the defaults defined by your system support group.

When your system support group installed the **ppml2afp** transform, a default **ppml2afp** command configuration file, **ppml2afp.cfg**, was installed in this directory:

- **With AIX**
`/usr/lpp/psf/ppml2afp/ppml2afp.cfg`
- **With Windows**
`install_path\ppml2afp\ppml2afp.cfg`

To create your own files, copy the **ppml2afp.cfg** file and then use a system editor to modify the options in this ASCII file to suit your needs.

Figure 10 on page 415 shows an example of a configuration file for InfoPrint Manager for AIX.

```

#
# default ppml2afp configuration file
#

# directory where PPML2AFP can create and maintain other files
ppml_work_directory = /var/psf/ppml2afp

# port number of the server running the PS2AFP transform
ps_server_port = 8251

# server name of the server running the PS2AFP transform
ps_server_name = 127.0.0.1

# resolution of the AFP being created; only supported values are 240, 300, 480 and 600
ppml_resolution = 600

# output type format; only supported values are FS45 (color), FS10 (monochrome) or IO1_G4 (monochrome)
ppml_outdatatype = FS45

# page height (measurement units: i (inches), c (centimeters), m (milimeters))
page_height = 11i

# page width (measurement units: i (inches), c (centimeters), m (milimeters))
page_width = 8.5i

# ignore all relative paths from the zip file and store all the resources under a single directory
ignore_path = true

# enable tracing
trace = off

```

Figure 10. Sample ppml2afp configuration file for AIX

Figure 11 on page 416 shows an example of a configuration file for InfoPrint Manager for Windows.

```

#
# default ppml2afp configuration file
#

# directory where PPML2AFP can create and maintain other files
ppml_work_directory = AFP_Support_Path\ppml2afp

# port number of the server running the PS2AFP transform
ps_server_port = 8251

# server name of the server running the PS2AFP transform
ps_server_name = ipm_server

# resolution of the AFP being created; only supported values are 240, 300, 480 and 600
ppml_resolution = 600

# output type format; only supported values are FS45 (color), FS10 (monochrome) or IO1_G4(monochrome)
ppml_outdatatype = FS45

# page height (measurement units: i (inches), c (centimeters), m (millimeters))
page_height = 11i

# page width (measurement units: i (inches), c (centimeters), m (millimeters))
page_width = 8.5i

# ignore all relative paths from the zip file and store all the resources under a single directory
ignore_path = true

# enable tracing
trace = off

```

Figure 11. Sample ppml2afp configuration file for Windows

Table 15. PPML printing and processing options

ppml2afp Flag	Keyword in ppml2afp Configuration File
-a output type	ppml_output_data_format
-d Working Directory	ppml_work_directory
-i ignore relative path in zip file	ignore_path
-l page height	page_height
-P PostScript/PDF port number	ps_server_port
-r resolution	ppml_resolution
-S PostScript/PDF server	ps_server_name
-t trace	trace
-w page width	page_width

Hierarchy of transform options

InfoPrint assigns a hierarchy to its use of options and configuration-file information when it runs the **ppml2afp** transform. This list lists the order in which InfoPrint uses command-line options and information specified in configuration files:

1. Any values you specify on the command line, including values in the configuration files you specify with the **-C** option.

InfoPrint commands process options from left to right. If you enter the same option more than one, InfoPrint uses the last occurrence of the flag to determine the value to use.

2. Values specified in the default transform configuration file, which is `/usr/lpp/psf/ppml2afp/ppml2afp.cfg` for AIX and `install_path\ppml2afp\ppml2afp.cfg` for Windows.
3. Default values that are built into InfoPrint. These are the same as the transform defaults.

Examples

- To submit the PPML file `sample.ppml` with a **pdpr** command:


```
pdpr -P molly-lp /usr/lpp/psf/ppml2afp/sample.ppml
```
- To transform the PPML file `sample.ppml` into an AFP data stream, but not print it:


```
ppml2afp -S robin -P 11106 -o sample.afp sample.ppml
```
- To transform the PPML file `sample.ppml` into an AFP data stream, and then submit it to the InfoPrint logical printer called `robin-lp`, enter:


```
ppml2afp -S robin -P 11106 -o sample.afp sample.ppml (FOLLOWED BY)

pdpr -p robin-lp -x "default-printer-resolution=600" -x "color-bits-per-plane=8"
sample.afp
```

Files

For AIX

`/usr/lpp/psf/bin/ppml2afp`
Script to invoke the transform

`/usr/lpp/psf/bin/ppml2afp.jar`
PPML transform executable

For Windows

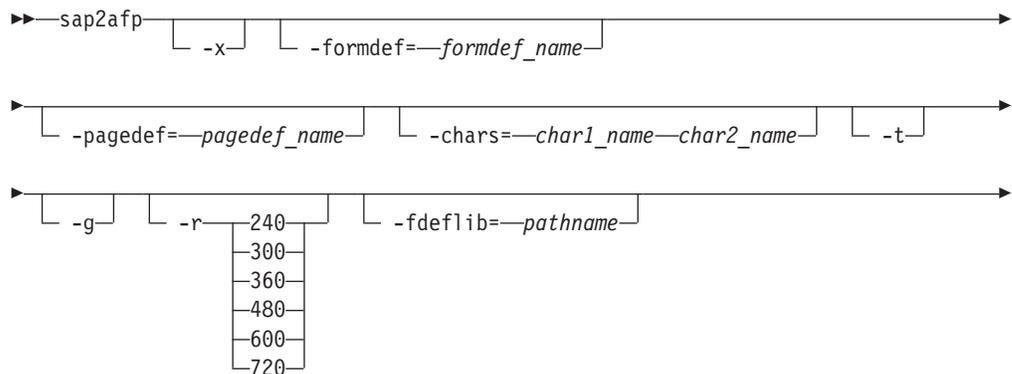
`install_path\bin\ppml2afp.bat`
Script to invoke the transform

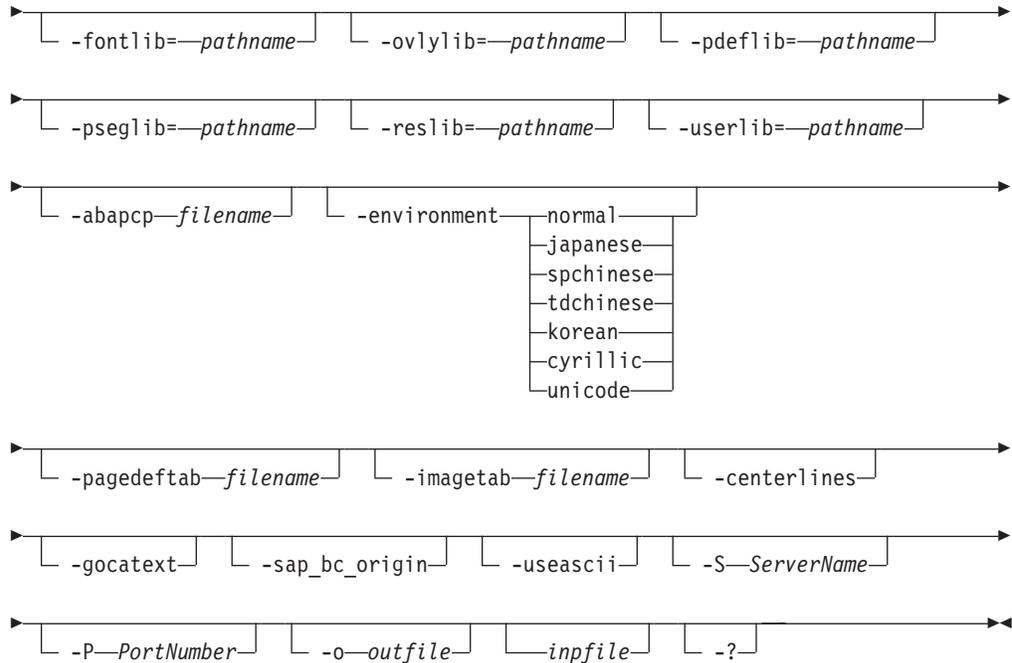
`install_path\bin\ppml2afp.jar`
PPML transform executable

sap2afp command: transforms SAP OTF or ABAP data to AFP

Syntax

sap2afp command





Description

Use the **sap2afp** command to transform an SAP Output Text Format (OTF) or Advanced Business Application Programming (ABAP) file into an AFP data stream file.

Automatic invocation

The PSF DSS automatically invokes the **sap2afp** transform command whenever you submit a OTF or ABAP file for printing. You can pass options to **sap2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **sap2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-r 300**, can be passed in InfoPrint Submit Express by clicking **Advanced** tab and entering them in the **Transform options** field or in InfoPrint Job Ticketer by clicking **Transform Settings** page and entering them in the **Transform options** field.

Flags

— -x —————

This flag is available for backward compatibility purposes. When calling the **sap2afp** command, the resources specified in the appropriate pagedef tab file are used and therefore, entering the **-x** parameter is not necessary. The parameters **-formdef**, **-pagedef** and **-chars** will take precedence, regardless of the fact that **-x** was specified or not.

— -formdef=*formdef_name* —————

Specifies the name of the form definition to be used to transform an SAP file into an AFP data stream file.

|— -pagedef=*pagedef_name*—|

Specifies the name of the page definition to be used to transform an Advanced Business Application Programming (ABAP) file into an AFP data stream file.

|— -chars=*char1_name**char2_name*—|

Specifies the name of the fonts to be used by ACIF in order to transform an Advanced Business Application Programming (ABAP) file into an AFP data stream file in a non-Unicode environment.

|— -environment—|
|— normal—|
|— japanese—|
|— spchinese—|
|— tdchinese—|
|— korean—|
|— cyrillic—|
|— unicode—|

Specifies one of the legal values for the possible environments. You can only use this flag when you are transforming an ASCII-encoded ABAP file.

|— -t—|

Traces program execution.

|— -g—|

Invokes the Graphics Object Content Architecture (GOCA) feature of the printer device. The GOCA feature lets you print boxes with four different levels of shading, as well as clear and solid boxes.

|— -r—|
|— 240—|
|— 300—|
|— 360—|
|— 480—|
|— 600—|
|— 720—|

Specifies the printer resolution as dots-per-inch (DPI) used to print image data in the job. If you do not specify the **-r** flag, the **DEFRES** value in the **image.tab** file is used. In the **image.tab** file shipped with InfoPrint, the **DEFRES** value is **600**.

|— -fdeflib=*pathname*—|

Specifies the *pathname* for the form definition resources. You can only use this flag when you are transforming an ABAP file.

`-fontlib=pathname`

Specifies the *pathname* for the font resources. You can only use this flag when you are transforming an ABAP file.

`-ovlylib=pathname`

Specifies the *pathname* for the overlay resources. You can only use this flag when you are transforming an ABAP file.

`-pdeflib=pathname`

Specifies the *pathname* for the page definition resources. You can only use this flag when you are transforming an ABAP file.

`-pseglib=pathname`

Specifies the *pathname* for the page segment resources. You can only use this flag when you are transforming an ABAP file.

`-reslib=pathname`

Specifies the *pathname* for the system resources. You can only use this flag when you are transforming an ABAP file.

`-userlib=pathname`

Specifies the *pathname* for the user resources. You can only use this flag when you are transforming an ABAP file.

`-abapcp=filename`

Specifies the *filename* to use instead of the information in the default defcp tab file selected. You can only use this flag when you are transforming an ABAP file.

`-pagedefstab=filename`

Specifies the *filename* to use instead of the information in the default pagedefstab file selected.

`-imagetab=filename`

Specifies the *filename* to use instead of the information in image.tab.

| `-centerlines` |

Specifies the use of the SAP specification for centering BX boxes.

| `-gocatext` |

Specifies the use of GOCA fonts from the 6400fonts.tab for ST text data.

| `-sap_bc_origin` |

Specifies the SAP bar code orientation point as the lower left corner.

| `-useascii` |

Specifies that data should be interpreted as ASCII in SAPGOF files with ST commands that use CP4102 or CP4103 with simple lengths.

| `-S ServerName` |

Specifies the name of the server to be used for processing.

| `-P PortNumber` |

Specifies the port number that the server monitors (set by the **-S** flag).

| `-o outfile` |

Specifies the name of the output file.

| `infile` |

Specifies the input file.

| `--?` |

Displays the **sap2afp** help file.

The **sap2afp** configuration files

This section contains examples for the configuration files required with the **sap2afp** transform:

- **barcode.tab**
- **defcp.tab**
- **defcp.tab.unicode**
- **defcp.tab.japan**
- **defcp.tab.korea**

- defcp.tab.spchinese
- defcp.tab.tdchinese
- defcp.tab.cyr
- fonts.tab
- fonts.tab.unicode
- image.tab
- pagedef.tab
- pagedef.tab.unicode
- pagedef.tab.japan
- pagedef.tab.korea
- pagedef.tab.spchinese
- pagedef.tab.tdchinese
- pagedef.tab.cyr
- userenv
- xxxxyyyy.tab

Notes:

1. All tables can contain comments (starting with // in column 1) and empty lines. These lines are ignored by the **sap2afp** transform.
2. All table entries are case-sensitive.

barcode.tab configuration file

This table describes the bar code mappings. SAP calls bar codes by names that must be mapped into the matching bar codes available with Bar Code Object Content Architecture™ (BCOCA).

barcode.tab uses these keyword-value pairs:

BarCode

Specifies the OTF bar code names (**SAPBARCODE** parameter of the **BC** OTF command). The maximum length of this field is 8 bytes. It can contain any value.

Type Specifies the AFP bar code type as defined in *InfoPrint Data Stream and Object Architectures: Bar Code Object Content Architecture Reference* for the **Barcode Type** parameter of the **Barcode Data Descriptor** Structured Field. The content can be any decimal value between 0 and 999. The **sap2afp** transform does not verify that this value maps to a valid hexadecimal barcode type.

Mode Specifies the modifier byte in the **Barcode Modifier** parameter of the **Barcode Data Descriptor** Structured Field. Any numeric value between 0 and 999 is accepted and not verified.

Flag Controls the printing of the Human Readable Interface (**HRI**) character. Specify one of these values:

0 Causes the **HRI** character to be printed

128 Causes the **HRI** character not to be printed

ModWidth=*n*

This optional keyword specifies the width of the smallest defined bar code element, using mils (thousandths of an inch). For bar code types that explicitly specify the module width, such as POSTNET or RM4SCC, this field is ignored. The range of values allowed is 1–254. If **ModWidth** is not specified, the printer default **ModWidth** is used.

n specifies the width of each module, using thousandths of an inch (1/1000) as the unit of measurement.

Ratio=*n*

This optional keyword specifies the ratio between the width of the wide and the narrow bar code elements. The range of values allowed is 100–500, but you must specify a value appropriate for your printer and bar code type. If the values you specify are not appropriate for your printer, error messages are issued at printing time. If **Ratio** is not specified, the printer default Ratio is used.

n specifies the **Ratio** as a percent value. The ratio value should be between 200 and 300 in the form *mmm*. For example, 200 represents a ratio of 2 to 1; 250 represents a ratio of 2.5 to 1. For bar code types that explicitly specify the module width (for example, POSTNET and RM4SCC, this field is ignored. If **RATIO** is not specified, the default ratio for the bar code symbol is used.

Note: Many barcode types do not support Ratio values or if they do, the Ratio values are in certain ranges that are type-specific.

This example uses both the **Ratio** and **ModWidth** optional keywords:

```
BarCode=BC_CD39 Type=001 Mode=001 Flag=128 Ratio=200 ModWidth=10
```

Notes:

1. The system administrator is responsible for the values entered in the table. Incorrect values are not verified and might result in errors.
2. The second group of bar codes in the **barcode.tab** file (following the blank line) is supported from R/3 Release 3.0A only.
3. Although 2D barcode support has been added to InfoPrint Manager, the system administrator needs to update the **barcode.tab** with the information for 2D barcode for users who need to use them.

Figure 12 on page 424 shows a sample **barcode.tab** configuration file.

```

// Barcode table

// Format : Barcode=ARTNR Type=017 Mode=002

//Barcode = 30F9      Type = 001 Mode = 001 Flag = 000
//Barcode = 30F91    Type = 001 Mode = 002 Flag = 000
//Barcode = MSI      Type = 002 Mode = 002 Flag = 000
//Barcode = UPCA     Type = 003 Mode = 000 Flag = 000
//Barcode = UPCE     Type = 005 Mode = 000 Flag = 000
//Barcode = UPC2     Type = 006 Mode = 000 Flag = 000
//Barcode = UPC5     Type = 007 Mode = 000 Flag = 000
//Barcode = EAN8     Type = 008 Mode = 000 Flag = 000
//Barcode = EAN13    Type = 009 Mode = 000 Flag = 000
//Barcode = IND25    Type = 010 Mode = 002 Flag = 000
//Barcode = MAT25    Type = 011 Mode = 002 Flag = 000
//Barcode = INTER    Type = 012 Mode = 002 Flag = 000
//Barcode = CODA     Type = 013 Mode = 002 Flag = 000
//Barcode = C128     Type = 017 Mode = 002 Flag = 000
//Barcode = EAN2     Type = 022 Mode = 000 Flag = 000
//Barcode = EAN5     Type = 023 Mode = 000 Flag = 000
//Barcode = POST     Type = 024 Mode = 002 Flag = 000
//Barcode = AUFNR    Type = 001 Mode = 001 Flag = 128

Barcode = ARTNR      Type = 017 Mode = 002 Flag = 000
Barcode = AUFNR      Type = 017 Mode = 002 Flag = 000
Barcode = BARCLVS    Type = 001 Mode = 001 Flag = 000

Barcode = BC_C128B   Type = 017 Mode = 002 Flag = 128
Barcode = BC_CD39    Type = 001 Mode = 001 Flag = 128
Barcode = BC_CD39C   Type = 001 Mode = 002 Flag = 128
Barcode = BC_EAN13   Type = 009 Mode = 000 Flag = 128
Barcode = BC_EAN8    Type = 008 Mode = 000 Flag = 128
Barcode = BC_I25     Type = 012 Mode = 001 Flag = 128
Barcode = BC_I25C    Type = 012 Mode = 002 Flag = 128
Barcode = BC_MSI     Type = 002 Mode = 001 Flag = 128
Barcode = BC_MSIC    Type = 002 Mode = 002 Flag = 128
Barcode = BC_MSIC1   Type = 002 Mode = 003 Flag = 128
Barcode = BC_MSIC2   Type = 002 Mode = 005 Flag = 128

Barcode = KUNAUNR    Type = 017 Mode = 002 Flag = 000
Barcode = KUNAUPS    Type = 017 Mode = 002 Flag = 000
Barcode = MBBARC     Type = 017 Mode = 002 Flag = 000
Barcode = MBBARC1    Type = 008 Mode = 000 Flag = 000
Barcode = RSNUM      Type = 017 Mode = 002 Flag = 000
Barcode = RSPOS      Type = 017 Mode = 002 Flag = 000
Barcode = RUECKNR    Type = 017 Mode = 002 Flag = 000

```

Figure 12. Sample barcode.tab configuration file

defcp.tab configuration file

Figure 13 on page 425 shows the default conversion table for the conversion of ASCII characters into EBCDIC. The **sap2afp** transform uses this table for ABAP data conversion.

The left column consists of the ASCII code, while the right column contains the corresponding EBCDIC value. The values are checked for a decimal numeric value between 0 and 255.

```

// Linedata CodePage
//-----
// This file is used internally by sap2afp, as well as
// to convert ABAP data to linedata.

// Format : Ascii=Ebcdic

// T1000819 + box characters -> T1DABASE

000 = 064
001 = 064
002 = 064
.
253 = 064
254 = 062
255 = 223

```

Figure 13. Sample defcp.tab configuration file

defcp.tab.unicode configuration file

This file is used for processing ABAP files in a Unicode environment. Its structure is the same as the defcp.tab file with the addition of the Unicode conversion directives.

defcp.tab.japan configuration file

This file is used for processing ASCII-encoded ABAP files containing Japanese characters in a non-Unicode environment. The structure of the file is the same as the defcp.tab file with the addition of some conversion directives.

defcp.tab.korea configuration file

This file is used for processing ASCII-encoded ABAP files containing Korean characters in a non-Unicode environment. The structure of the file is the same as the defcp.tab file with the addition of some conversion directives.

defcp.tab.spchinese configuration file

This file is used for processing ASCII-encoded ABAP files containing Simplified Chinese characters in a non-Unicode environment. The structure of the file is the same as the defcp.tab file with the addition of some conversion directives.

defcp.tab.tdchinese configuration file

This file is used for processing ASCII-encoded ABAP files containing Traditional Chinese characters in a non-Unicode environment. The structure of the file is the same as the defcp.tab file with the addition of some conversion directives.

defcp.tab.cyr configuration file

This file is used for processing ASCII-encoded ABAP files containing Cyrillic characters in a non-Unicode environment. The structure of the file is the same as the defcp.tab file with the addition of some conversion directives.

fonts.tab configuration file

This table maps the fonts used in the OTF data stream to AFP fonts in a non-Unicode environment.

The following font families are predefined:

FONTFAMILY

Font

COURIER

Courier

HELVE

Helvetica

LETGOTH

Letter Gothic

LNPRINT

Line Print

TIMES

Times New Roman

OCRA

Optical Character Recognition A

OCRB Optical Character Recognition B

JPMINCHO

Heisei Mincho

DBMINCHO

Heisei Mincho

DBGOTHIC

Heisei Gothic

Note: **JPMINCHO** and **DBMINCHO** are different names for the same font.

A font named **BARCODE** must be defined for the **HRI** character of a bar code.

These parameters in the **fonts.tab** configuration file set the format of the fonts you use to print:

DefCodePage

Specifies the default SBCS code page used if no **FC** OTF command is given or if the requested font is not found in the **fonts.tab** table.

DefCharSet

Specifies the default SBCS character set used if no **FC** OTF command is given or if the requested font is not found in the **fonts.tab** table.

DBDefCodePage

Specifies the default DBCS code page used if no **FC** OTF command is given or if the requested font is not found in the **fonts.tab** table.

DBDefCharSet

Specifies the default DBCS character set used if no **FC** OTF command is given or if the requested font is not found in the **fonts.tab** table.

SBDefCodePage

Specifies the default SBCS code page used for half-width characters in DBCS fonts if no **FC** OTF command is given or if the requested font is not found in the **fonts.tab** table.

| **SBDefCharSet**

| Specifies the default SBCS character set used for half-width characters in
| DBCS fonts if no **FC OTF** command is given or if the requested font is not
| found in the **fonts.tab** table.

| **Font** Describes the font family (**FONTFAMILY** parameter of the **FC OTF**
| command). The maximum size is 8 bytes and content is not verified.

| **Size** Specifies the font size in 1/10 of a point (**FONT SIZE** parameter of the **FC**
| **OTF** command). The value must be numeric and is not verified.

| **Type** Defines the font type (**BOLD** and **ITALIC** parameter of the **FC OTF**
| command). **Type=0** is normal, **Type=1** is italic, **Type=2** is bold, and **Type=3**
| is italic bold. Any other value is not valid.

| **CodePage**

| Specifies the code page and requires a valid AFP code page name (8 bytes).
| The value is not verified. An incorrect name can result in an error message.

| **CharSet**

| Specifies the AFP font character set. The content is not verified.

| **CodedFont**

| Specifies the AFP coded font. The content is not verified.

| **DB** Specifies whether the font is an SBCS font (**DB=0**) or a DBCS font (**DB=1**).

| **SBCCodePage**

| Specifies the single-byte code page used for half-width characters in DBCS
| fonts. The value is not verified. An incorrect name can result in an error
| message.

| **SBCharSet**

| Specifies the AFP single-byte font character set used for half-width
| characters in DBCS fonts. The content is not verified.

| **SBCodedFont**

| Specifies the AFP single-byte coded font used for half-width characters in
| DBCS fonts. The content is not verified.

| If an SBCS font that matches the **Font**, **Size** and **Type** values is not found, the code
| page and font character set from the **DefCodePage** and **DefCharSet** keywords are
| used and a warning message is displayed. If a DBCS font that matches the **Font**,
| **Size** and **Type** values is not found, the code pages and font character sets from the
| **DBDefCodePage**, **SBDefCodePage**, **DBDefCharSet**, and **SBDefCharSet** keywords
| are used and a warning message is displayed.

| ISO 8859-1 (Latin-1) is the default code page that maps to the **1148** code page in
| the **fonts.tab** configuration table. This ISO code page maps to the German
| **T1V10273** code page and must be modified for non-Latin-1 installations. You can
| make this change on the *xxxxyyyy.tab* configuration file that is used to convert
| data from ASCII data to EBCDIC data so that these characters are mapped
| correctly.

| Use the font Letter Gothic Latin1 of the coordinated font family for ABAP listings.
| If you do not want to install the coordinated font family and plan to use the
| traditional Gothic text fonts found in the IBM Compatibility Fonts, you can adjust
| the font names in the **pagedef.tab** configuration file.

| If you wish to use fonts that are not supported, take these steps:

- | 1. Obtain the font as Adobe Type 1.

2. Convert the font into a raster using the Type Transformer that can be downloaded from the IBM Web site for no-charge, unsupported use at <http://www-01.ibm.com/support/docview.wss?uid=psd1P4000840>.
3. Contact your InfoPrint representative for further details.

Figure 14 and Figure 15 show examples of sections of the **fonts.tab** configuration file.

```

// Fonts table
// Format : Font=COURIER Size=070 Type=0 CodePage=T1V10273 CharSet=C0420070 DB=0
//          or
//          Font=COURIER Size=090 Type=0 CodedFont=X0GT2A DB=0
//          or
//          Font=JPMINCHO Size=060 Type=0 CodePage=T10300 CharSet=CZJHMN DB=1 SBCodePage=T1H01027 SBCharSet=CZJHMN
//          or
//          Font=JPMINCHO Size=060 Type=0 CodedFont=XZJHMN DB=1 SBCodedFont=XZN16J
DefCodePage = T1V10273
DefCharSet   = C0420000
DBDefCodePage = T10300
DBDefCharSet  = CZJHMN
SBDefCodePage = T1H01027
SBDefCharSet  = CZJHMN

// Courier
Font=COURIER Size=070 Type=0 CodePage=T1V10273 CharSet=C0420070 DB=0
Font=COURIER Size=070 Type=1 CodePage=T1V10273 CharSet=C0430070 DB=0
Font=COURIER Size=070 Type=2 CodePage=T1V10273 CharSet=C0440070 DB=0
Font=COURIER Size=070 Type=3 CodePage=T1V10273 CharSet=C0450070 DB=0
Font=COURIER Size=080 Type=0 CodePage=T1V10273 CharSet=C0420080 DB=0
Font=COURIER Size=080 Type=1 CodePage=T1V10273 CharSet=C0430080 DB=0
Font=COURIER Size=080 Type=2 CodePage=T1V10273 CharSet=C0440080 DB=0
Font=COURIER Size=080 Type=3 CodePage=T1V10273 CharSet=C0450080 DB=0
Font=COURIER Size=100 Type=0 CodePage=T1V10273 CharSet=C0420000 DB=0
Font=COURIER Size=100 Type=1 CodePage=T1V10273 CharSet=C0430000 DB=0
Font=COURIER Size=100 Type=2 CodePage=T1V10273 CharSet=C0440000 DB=0
Font=COURIER Size=100 Type=3 CodePage=T1V10273 CharSet=C0450000 DB=0
Font=COURIER Size=120 Type=0 CodePage=T1V10273 CharSet=C04200B0 DB=0
Font=COURIER Size=120 Type=1 CodePage=T1V10273 CharSet=C04300B0 DB=0
Font=COURIER Size=120 Type=2 CodePage=T1V10273 CharSet=C04400B0 DB=0
Font=COURIER Size=120 Type=3 CodePage=T1V10273 CharSet=C04500B0 DB=0
Font=COURIER Size=140 Type=0 CodePage=T1V10273 CharSet=C04200D0 DB=0
Font=COURIER Size=140 Type=1 CodePage=T1V10273 CharSet=C04300D0 DB=0
Font=COURIER Size=140 Type=2 CodePage=T1V10273 CharSet=C04400D0 DB=0
Font=COURIER Size=140 Type=3 CodePage=T1V10273 CharSet=C04500D0 DB=0
Font=COURIER Size=200 Type=0 CodePage=T1V10273 CharSet=C04200J0 DB=0
Font=COURIER Size=200 Type=1 CodePage=T1V10273 CharSet=C04300J0 DB=0
Font=COURIER Size=200 Type=2 CodePage=T1V10273 CharSet=C04400J0 DB=0
Font=COURIER Size=200 Type=3 CodePage=T1V10273 CharSet=C04500J0 DB=0

```

Figure 14. Header and Courier portions of a sample fonts.tab configuration file

```

// Japanese Gothic
Font=DBGOTHIC Size=060 Type=0 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG
Font=DBGOTHIC Size=080 Type=0 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG
Font=DBGOTHIC Size=100 Type=0 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG
Font=DBGOTHIC Size=100 Type=1 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG
Font=DBGOTHIC Size=120 Type=0 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG
Font=DBGOTHIC Size=140 Type=0 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG
Font=DBGOTHIC Size=160 Type=0 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG
Font=DBGOTHIC Size=180 Type=0 CodePage=T10300 CharSet=CZJHKG DB=1 SBCodePage=T1H01027 SBCharSet=CZJHKG

```

Figure 15. Heisei Gothic portion of a sample fonts.tab configuration file

fonts.tab.unicode configuration file

The fonts.tab.unicode file is used for processing OTF files in a Unicode environment. The structure of the file is the same as the fonts.tab file.

image.tab configuration file

This table defines values used to print image data. It contains these parameters:

DEFRES

Specifies the default resolution used for printing image data if you do not specify a value for the **-r** flag of the **sap2afp** command. Valid values are **240, 300, 360, 480, 600, and 720**.

Width Specifies the width of the dither matrix.

Height

Specifies the height of the dither matrix.

Cell Specifies the values for the dither matrix.

Transform

Specifies 256 grayscale correction values.

Figure 16 shows an example of the **image.tab** configuration file.

```
// image.tab
// from image.tab.851r
//
// This file is used to determine the dither matrix and the
// grayscale correction values.

// Define the default output resolution
DEFRES = 600

// Define the dither matrix
Width = 78
Height = 78
Cell =
  15  63 184 219 249 240 158 109  98  54  82 118 133 113  75  64
  87 104 166 215 234 229 179  62  38  4  15  59 186 220 246 240
166 123  87  61  65 108 133 118  78  64 100 105 167 219 234 230
  :
  28  73 193 223 253 247 199  76  31  8  20  93 148 156 203 178
136 126 144 186 201 155 151  90  43  24  28  75 199 222 254 251
196  79  31  7

//
// Grayscale correction values
//

Transform =
0
1
2
:
248
252
255
```

Figure 16. Sample image.tab configuration file

pagedef.tab configuration file

The pagedef table provides the **PAGEDEF** and **FORMDEF** values used from the value of the ***PJPAPER** parameter that is passed to the **sap2afp** transform with any access method that can submit SAPGOF to **sap2afp**, including the **E** or **L** access method. It also provides the fonts used for ABAP data.

The name of a **PAGEDEF** for line data is restricted to five digits instead of the usual six characters. The reason for this restriction is that the **PJPAPER** field is twelve bytes long and **must** begin with a **Z**. This restriction applies to ABAP reports (line data) with user-specific formatting only.

Paper Specifies the value of the OTF print option parameter **PJPAPER**. The value is not verified.

FormDef

Specifies the name of the form definition to be used for printing both OTF and ABAP reports. This value is not verified. An error results if the form definition is not found on the print server system.

PageDef

Specifies the name of the page definition to be used for printing ABAP reports. This value is not verified. An error results if the page definition is not found on the print server system.

FontNorm

Specifies the normal coded font used for line data printing. The value is not verified.

FontBold

Specifies the bold coded font used for line data printing. The value is not verified.

Figure 17 shows a sample **pagedef.tab** configuration file:

```
// PageDef table
// Format : Paper=X_65_132 FormDef=F1A10111 PageDef=P1H01SP1
// FontNorm = 50D0 FontBold = 50F0

// Notes:
// =====
// 1) The pagedefs apply to letter size paper.
//    A4 paper size might require modifying the PageDef field.
// 2) Z_INCH12 is a sample for a user specification

Paper=X_65_132 FormDef=F1A10111 PageDef=P1V06683 FontNorm = GB2A FontBold = GB2A
Paper=X_44_120 FormDef=F1A10111 PageDef=P1V06683 FontNorm = GB2A FontBold = GB2A
Paper=X_58_170 FormDef=F1A10111 PageDef=P1V06683 FontNorm = GT8A FontBold = GT8A
Paper=X_65_255 FormDef=F1A10111 PageDef=P1V06683 FontNorm = GT24 FontBold = GT24
Paper=X_65_80 FormDef=F1A10111 PageDef=P1C09182 FontNorm = GT2A FontBold = GB2A
Paper=X_90_120 FormDef=F1A10111 PageDef=P1C09182 FontNorm = GT5A FontBold = GT5A
Paper=X_PAPER FormDef=F1A10111 PageDef=P1C09182 FontNorm = GT2A FontBold = GB2A
// Sample of an added user-defined pagedef entry:
// Paper=Z_INCH12 FormDef=F1SAPFD PageDef=P1SAPPD FontNorm = GT2A FontBold = GB2A
```

Figure 17. Sample **pagedef.tab** configuration file

pagedef.tab.unicode configuration file

The **pagedef.tab.unicode** file is used for processing the **ABAP** files in Unicode environment. The structure is the same as the **pagedef.tab** file.

The two new page definitions mapping the Courier Unicode font are used by default. If you need to process **ABAP** files containing CJK characters, specify the names of the corresponding pagedefs for Japanese, Simplified Chinese, Traditional Chinese, or Korean in the `pagedef.tab.unicode` configuration file.

If you have your own custom page definitions that you want to use for Unicode processing, modify your sources to include mappings and associations for the needed Unicode fonts and recompile them. Specify the name of the custom page definition either in the `pagedef.tab.unicode` configuration file or with the `-pagedef` parameter to `sap2afp`.

pagedef.tab.japan configuration file

This file is used for processing ASCII-encoded ABAP files containing Japanese characters in a non-Unicode environment. The file structure is the same as the `pagedef.tab` file.

pagedef.tab.korea configuration file

This file is used for processing ASCII-encoded ABAP files containing Korean characters in a non-Unicode environment. The file structure is the same as the `pagedef.tab` file.

pagedef.tab.spchinese configuration file

This file is used for processing ASCII-encoded ABAP files containing Simplified Chinese characters in a non-Unicode environment. The file structure is the same as the `pagedef.tab` file.

pagedef.tab.tdchinese configuration file

This file is used for processing ASCII-encoded ABAP files containing Traditional Chinese characters in a non-Unicode environment. The file structure is the same as the `pagedef.tab` file.

pagedef.tab.cyr configuration file

This file is used for processing ASCII-encoded ABAP files containing Cyrillic characters in a non-Unicode environment. The file structure is the same as the `pagedef.tab` file.

userenv configuration file

The `userenv` configuration file is used to specify the environment for the ASCII-encoded **ABAP** files. The configuration file may contain the following values:

NORMAL - specifies European non-Unicode environment. The `defcp.tab` and `pagedef.tab` files are used.

JAPANESE - specifies Japanese non-Unicode environment. The `defcp.tab.japan` and `pagedef.tab.japan` files are used.

KOREAN - specifies Korean non-Unicode environment. The `defcp.tab.korea` and `pagedef.tab.korea` files are used.

SPCHINESE - specifies Simplified Chinese non-Unicode environment. The defcp.tab.spchinese and pagedef.tab.spchinese files are used.

TDCHINESE - specifies Traditional Chinese non-Unicode environment. The defcp.tab.tdchinese and pagedef.tab.tdchinese files are used.

CYRILLIC - specifies Cyrillic non-Unicode environment. The defcp.tab.cyr and pagedef.tab.cyr files are used.

UNICODE - specifies Unicode environment. The defcp.tab.unicode and pagedef.tab.unicode files are used

xxxxyyyy.tab configuration file

These tables are used for the mapping of characters of an individual SAP ASCII code page into an EBCDIC codepage. SAP uses two kinds of code pages: input code pages and output code pages.

SAP provides the the code page configuration files listed in Table 16.

Table 16. SAP code page configuration files

File Name	Input Code Page	Description	Output Code Page	Description
00000000.tab	T1000819	Latin-1 ISO ANSI 8-bit	T1V10273	Germany F.R./Austria-CECP
11000000.tab	T1000819	Latin-1 ISO ANSI 8-bit	T1V10273	Germany F.R./Austria-CECP
40010000.tab	T1000876 ¹	OCR-A ASCII	T1000892	OCR-A
40040000.tab	T1000877 ¹	OCR-B ASCII	T1000893	OCR-B
80000000.tab	IBM-943C	Japanese	IBM-1399-SAP2AFP	Japanese

1. Both the OCR-A and the OCR-B code pages are equivalent to ISO-8859/1 with the special characters **hook**, **fork**, and **chair**.

The file names correspond to the 4-digit value of the **INPUTCODEPAGE** plus the 4-digit value **OUTPUTCODEPAGE** parameter of the **CP OTF** command.

```
// Codepage table

// Inp CodePage 0000
// Out CodePage 0000

// Format : Ascii=EbcDic

000 = 000
001 = 001
002 = 002
003 = 003
.
.
253 = 064
254 = 062
255 = 223
```

Figure 18. Sample xxxxyyyy.tab configuration file (single-byte code pages)

```

// Japanese
// SAP2AFP is configured to use IBM-943C-SAP2AFP as the uconv
// "From" value.
// This table sets the "To" value to IBM-1399-SAP2AFP.
//

```

```

CONVERT FOR=8000
CONVERT TO=IBM-1399-SAP2AFP

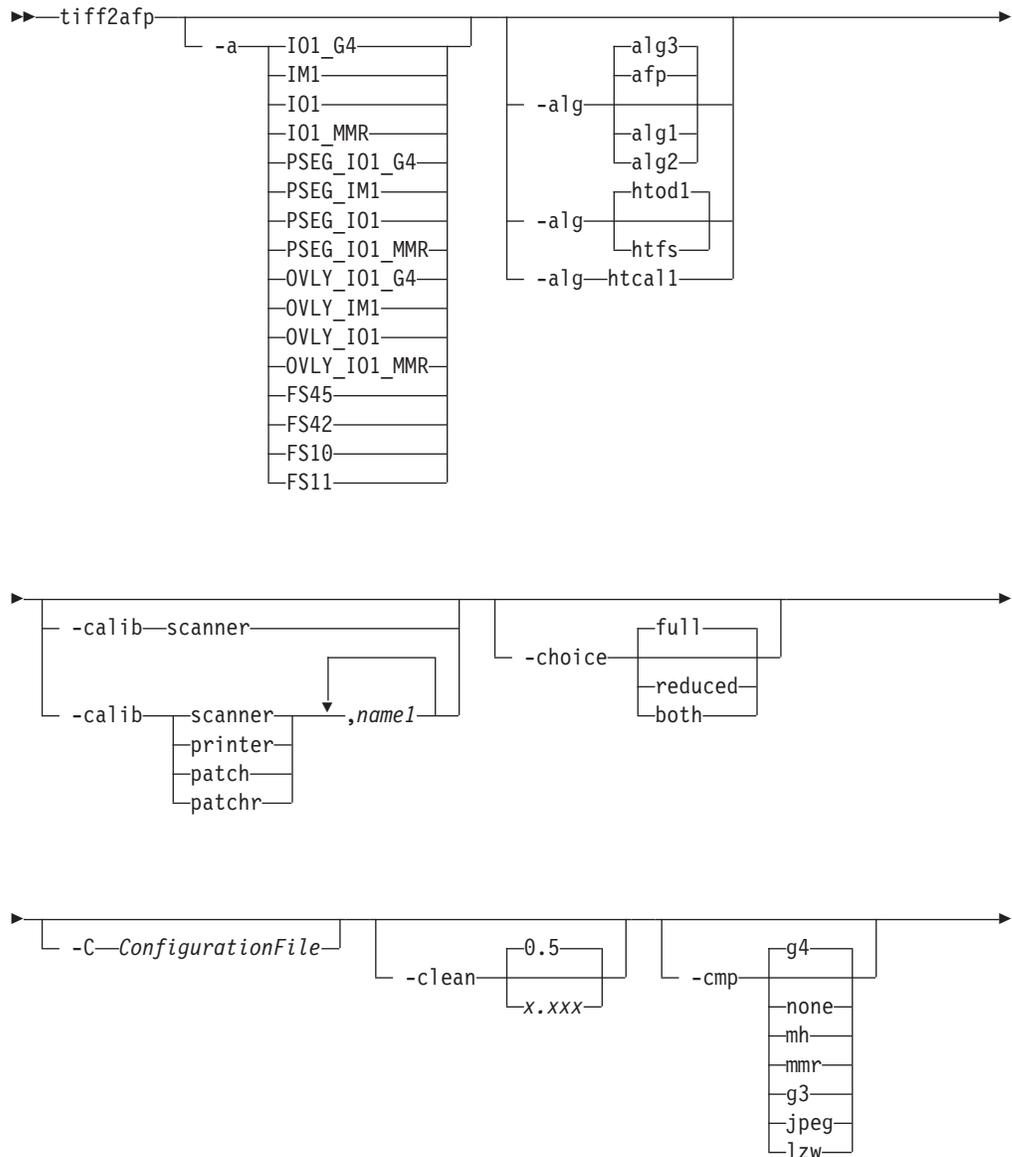
```

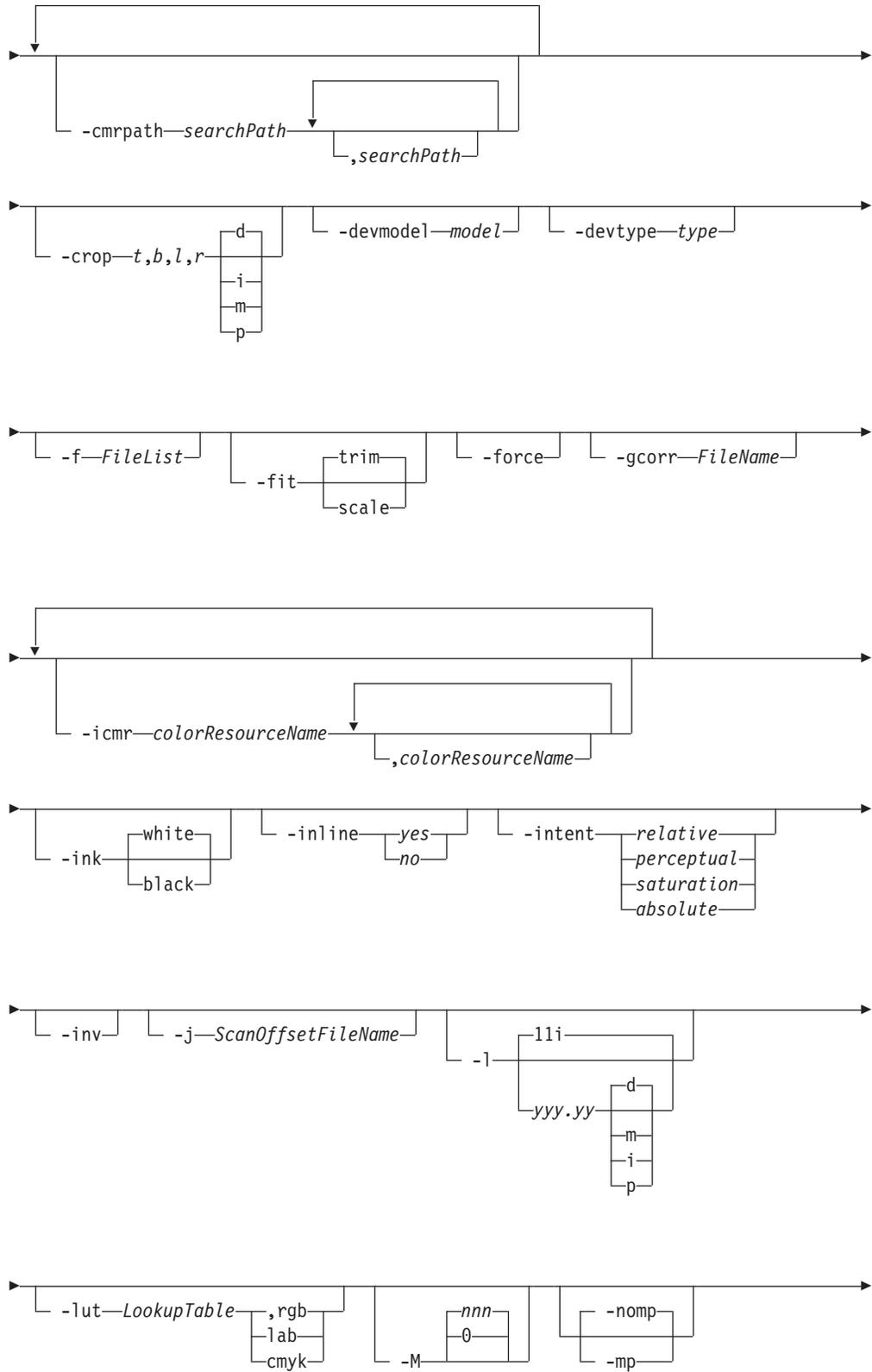
Figure 19. Sample xxxxyyyy.tab configuration file (Double-Byte Code Pages)

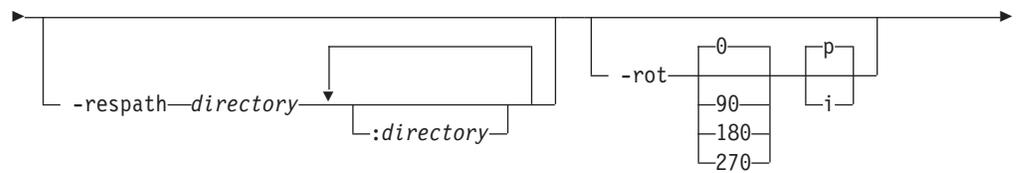
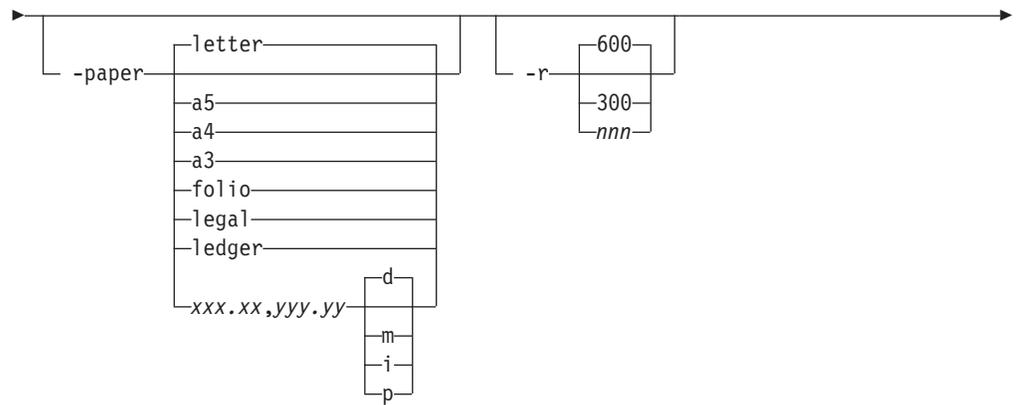
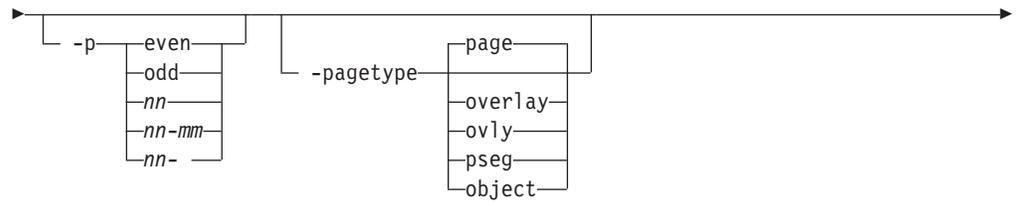
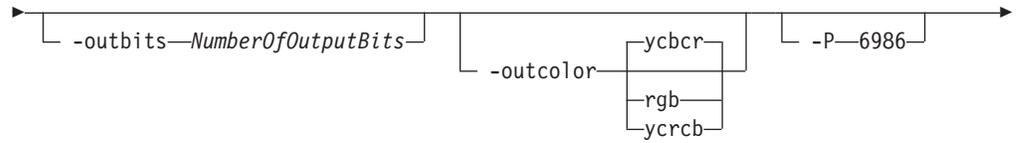
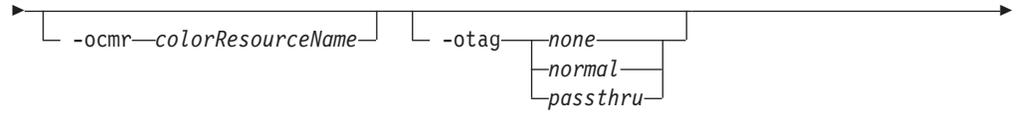
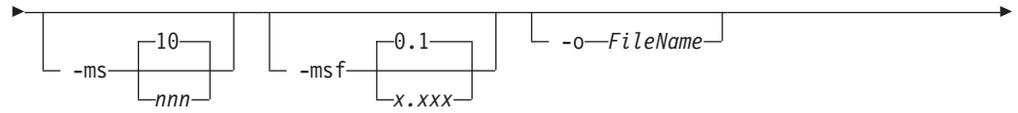
tiff2afp command: transforms TIFF data to AFP

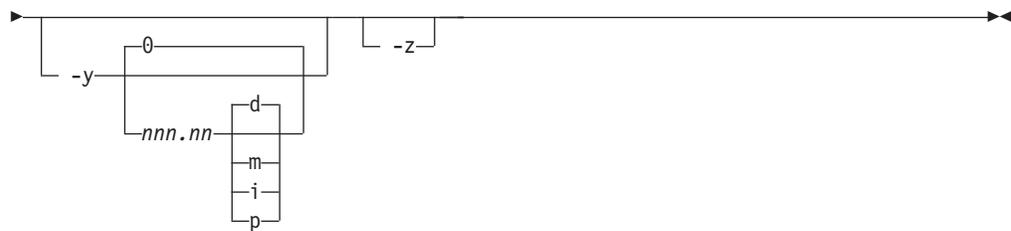
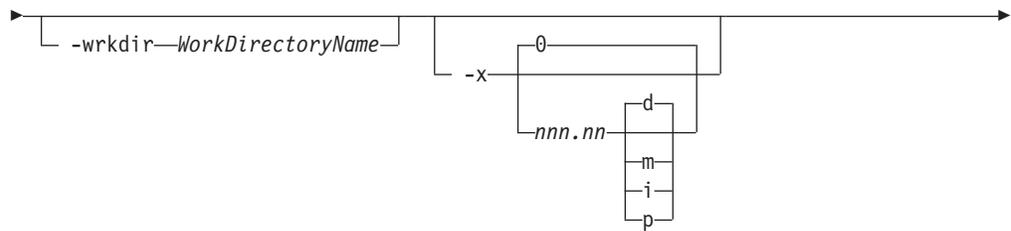
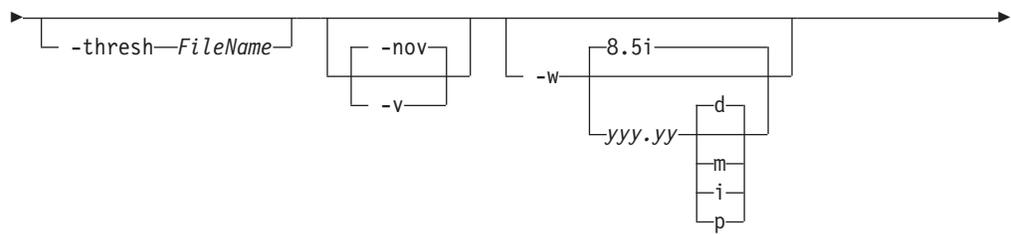
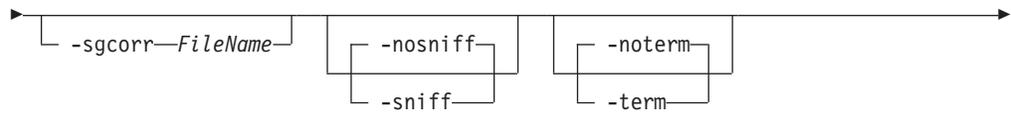
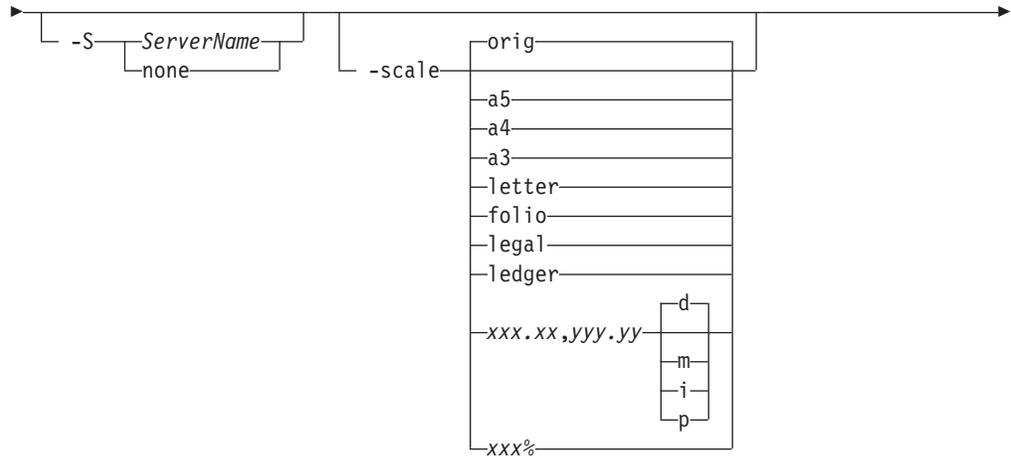
Syntax

tiff2afp command









Description

The **tiff2afp** command transforms a TIFF (Tag Image Format File) data stream into an AFP (MO:DCA-P) or PostScript Level 2 data stream file.

The transform can process extended TIFF Revision 6.0 images, including bi-level, gray scale and color images. The output can be bi-level (IM1 or IOCA FS10), 4-bit or 8-bit gray scale, or 24-bit YCbCr color (IOCA FS11), bi-level or 4-bit banded CMYK image at 1-bit per band (IOCA FS42), or a superset of FS42 that also contains 32-bit banded CMYK images, compressed with either JPEG or LZW algorithms (IOCA FS45). The transform automatically uses halftoning to convert the gray scale and color images to bi-level.

For more information about the **tiff2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Automatic invocation

The PSF DSS automatically invokes the **tiff2afp** transform command whenever you submit a TIFF file for printing. You can pass options to **tiff2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **tiff2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-alg**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**.

Input and output

tiff2afp can process either standard input or multiple files specified on the command line. If no input file is specified, **stdin** is assumed. Standard input is cached to a file (see the **-wrkdir** option) and then processed. Only a single TIFF file should be submitted using **stdin**. If multiple TIFF files are concatenated using standard input, all except the first one are ignored.

If an input file is specified on the command line, it can be either a TIFF file, a directory, or a file list (**-f** and **@** prefixes). Multiple input file specifications are allowed. The transform processes each file in the order in which it was specified on the command line. If the **-z** option is specified, a list of file names to be processed is also submitted using standard input. The files on the list are processed as if the list were given using the **-f** option on the same place on the command line as **-z**.

If the file name points to a directory, **tiff2afp** processes every file in that directory. The files are processed in the order they would be shown using the **ls -a** command. Directory search is not recursive, that is, the subdirectories are not searched.

If the file name is preceded by the **-f** option or the at sign (**@**), **tiff2afp** assumes that the file contains the list of TIFF files to be processed. Each of the files in the list is processed in the order it was listed.

If a TIFF file has the extension **.tif**, **.tiff**, **.TIF**, or **.TIFF**, this extension need not be given explicitly. **tiff2afp** first tries to open the file as specified, and if unsuccessful, tries to append the extensions **.tif**, **.tiff**, **.TIF**, and **.TIFF** in turn.

For example, suppose that:

- The directory **tFiles** contains the files **file1.tif**, **file2.tif**, **file3.tif**, and **file4.tif** and nothing else.
- The file **flist** in the current directory contains the two file names **tFiles/file2.tif** and **tFiles/file3.tif**. The names listed in the file list can have their extensions omitted.
- The file **flist2** contains the file name **tFiles/file4**. Again, the names listed in the file list can have their extensions omitted.

To process files **file1.tif**, **file2.tif**, **file3.tif**, and **file4.tif**, any of these invocations of **tiff2afp** would work:

```
tiff2afp tFiles/file1.tif tFiles/file2.tif tFiles/file3.tif tFiles/file4.tif
tiff2afp tFiles/file1 tFiles/file2 tFiles/file3 tFiles/file4
tiff2afp tFiles/file*.tif
tiff2afp tFiles
tiff2afp tFiles/file1 -fflist tFiles/file4
tiff2afp tFiles/file1 -f flist tFiles/file4
tiff2afp tFiles/file1 -f flist -f flist2
tiff2afp tFiles/file1 @flist @flist2
```

Note: With InfoPrint Manager for Windows, you can enter separators in path names as backward slashes or forward slashes.

The file list files allow the display text to be added for each file. A display text is any text starting with the pound character (**#**) and extending to the end of the line. The display text should follow the file name, and can extend over several lines, up to 2048 characters long. The initial **#** character on each line is discarded. If a display text is present for a file name, that text is displayed in the status and error messages instead of the file name. This is useful if the **tiff2afp** is invoked using temporary files whose names are meaningless to the user. Any display text before the first file name is treated as comment and discarded. Display text is allowed also if you use the **-z** option to submit the file list via standard input.

TIFF files can contain multiple images. The **tiff2afp** transform can process and output all the images in the file, both full and reduced resolutions, subject to the values given in the **-choice** and **-p** options. Transparency maps are ignored. If the page numbers are available in the TIFF data, the pages are sorted on output. The pages are not sorted across file boundaries.

The output file name can be either specified explicitly using the **-o** option or derived from the input file name. If multiple input files have been specified, the default output file is standard output. If a single input file is given and the output file is not specified explicitly, the transform strips the **.tif** or **.tiff** extension from the input file name (if one is present) and appends the **.afp** extension for AFP output or the **.ps** extension for PostScript output to get the output file name.

To disable automatic output file name generation and force the default output stream to be the standard output in all cases, set the environment variable **TIFF2AFP_o** to **-** or **stdout**, or, alternatively, put the line **o=-** or **o=stdout** into the configuration file and invoke that configuration file using the **-C** option or the **TIFF2AFP_C** environment variable.

For example, all these commands:

```
tiff2afp myfile
tiff2afp myfile.tif
tiff2afp myfile -o myfile.afp
```

have `myfile.afp` as the output file. There is no requirement for the explicitly specified input and output files to have `.tif` and `.afp` extensions. To process TIFF file `foo.bar` into an AFP file `foo.bar2`, invoke the transform using:

```
tiff2afp foo.bar -o foo.bar2
```

The output data stream is MODCA-P or PostScript Level 2. MODCA-P data can be encoded as IM1 or IOCA Function Sets (FS) 10, 11, 42, or 45. IM1 images are bi-level and uncompressed. Function Set 42 is tiled, while Function Sets 10 and 11 are not. All IOCA function sets can contain bi-level image data. In addition, Function Set 11 can also contain 4- and 8-bit grayscale, as well as 24-bit (8 bits per plane) YCbCr color. Be aware that AFP Workbench is the only product that supports IOCA FS11 images, that is, grayscale and YCbCr color AFP images are not supported by any printer. In addition to bi-level images, Function Set 42 can also contain 4-bit (1 bit per plane) CMYK data. The InfoPrint Color 100 AFP printer fully implements IOCA FS42. Function Set 45 is a superset of FS42 and supports 32-bit (8 bits per plane) CMYK images, as well as transparency masks and different relative resolutions. FS45 is implemented in the InfoPrint Color 130 Plus printer.

While FS45 and FS42 can contain an image divided into a number of tiles, the transform currently outputs the image in a single tile. The IOCA output image data can be either uncompressed or compressed using one of several algorithms (see the `-cmp` option). The default compression algorithm for bi-level image data is ITU-TSS T.6 Group 4, while the compression algorithm for grayscale and YCbCr defaults to no compression. CMYK images in FS42 are carried in the planar (banded) format, and each band is compressed separately as a bi-level image.

The default compression for FS45 output is JPEG, which is downsampled by a factor of two. Use `-cmp lzw` to obtain LZW-uncompressed, unsubsampling output.

Note: LZW compression should be used only for linework images and not for continuous tone images.

PostScript Level 2 images can be uncompressed or ITU-T T.6 Group 4 bi-level, uncompressed 8-bit grayscale or uncompressed 24-bit RGB color. By default, the transform leaves scaling and halftoning to the printer (that is, color TIFF images are output as 24-bit RGB color images).

Errors and error recovery

`tiff2afp` divides errors into fatal and non-fatal. The fatal error categories are:

- Errors in the user-specified parameters, either in the environment variables, the configuration file, or the command line arguments. These errors include unrecognized options, incorrect values for parameters, or inability to open the configuration file or the output file.
- Out of memory errors. The requested memory is larger than the memory specified using the `-M` option or the dynamic memory allocation has failed.
- Disk space errors. The transform guards against trying to write to a full file system. See the `-ms` and `-msf` options for setting the minimum free disk space requirements. If the file system is full, the transform deletes the partial output file before terminating.

- Internal errors.

In the case of a fatal error, the last output page might not be complete.

Errors found in the TIFF files are non-fatal and **tiff2afp** tries to recover from them. These errors include not being able to open an input file, an input file not being a TIFF file, or an input file containing features that cannot be processed. If the transform fails to open 15 or more input files, it assumes an error in the parameter list (for example, **-f** was used with a file that does not contain a file list) and terminates.

If an error is found in a file, the transform tries to recover with the next image in the file. If such recovery is not possible, **tiff2afp** tries to recover with the next input file. In both cases, a warning message is issued. Errors and warnings are output to standard error.

For example, let a directory `tFiles` contain files `file1.tif`, `file1.txt`, `file2.tif` and `file3.tif`, where `file1.txt` is an ASCII file. Invoking the transform with:

```
tiff2afp tFiles
```

processes the bi-level images in all three TIFF files correctly. A warning is issued that `file1.txt` is not a TIFF file.

Non-fatal errors can be made fatal by using the option **-term** or the corresponding environment variable or configuration file entry. If **-term** is set, the transform terminates in error if it encounters an error in the TIFF data stream.

Data transformations

If the input image is gray scale or color, and the output image type is bi-level (for example, IOCA FS10, or IM1), the transform internally scales the image to the desired size, then uses a halftoning algorithm (ordered dither, the default, or Floyd-Steinberg) to convert it to bi-level. In converting the image to bi-level, the characteristics of the output device, such as dot shape and dot gain, must be taken into consideration. The halftone screen and the calibration are extremely printer dependant. While the transform does contain an internal default (85 LPI screen at 45 degrees), an appropriate screen shipped with the InfoPrint Manager should be used and the halftone should be calibrated properly for best quality.

Some printers, such as the InfoPrint 4000, have two engines, one for each side of the sheet. Each engine commonly has a different calibration. Options **-thresh**, **-gcorr**, and **-e** provide the mechanism to specify halftone screen, grayscale correction curves, and rules for switching calibration based on the engine used to print a particular page. For very light or very dark images, the halftoning algorithms can be automatically recalibrated to preserve detail that would be lost using the default calibration. See option **-alg**.

To maintain the image quality, scaling must be done before halftoning. The halftoning algorithm is very compute-intensive. Unless the images are small, **tiff2afp** might not be able to process the color images fast enough to feed even a slow printer.

To achieve good image quality for the CMYK output, the input image colors must be converted to CMYK, bearing in mind the characteristics of the particular halftones used to generate the output image. The color conversion is done using a multidimensional lookup table, which is specified with the **-lut** option. If the transform cannot determine the appropriate lookup table or the lookup table is

missing, a simple conversion of RGB to CMY is performed using the 255-algorithm. This conversion does not use black and generally leads to poor color quality.

The size and the position of the output image on the page depends on several factors. In addition to the size specified to the transform, the result depends on the form map specified at print time and also on the form and options loaded in the printer. If the image is too large to fit on the page, it is trimmed to size by default. Use the **-fit** option to instruct the printer to scale the image to paper size. If the paper size has not been specified explicitly with the **-paper** option, the paper defaults to US letter (8.5 by 11 inches). If the image is larger than this, the paper dimensions are increased as necessary. If the paper size has been specified explicitly, it is not increased if the image will not fit on paper. Options **-l** and **-w** have the same effect as **-paper**.

The size of the actual image, as opposed to the paper size, is controlled by the **-scale** option. The **-scale** option can either specify "**orig**", or give an actual size. If **orig** has been specified, the output image has the same size as the input image. If **-scale** with an actual size has been specified, the output image is scaled to the desired size. A percentage enlargement/reduction can also be specified.

Even if **-scale orig** has been specified, the image might still need to be scaled if the input resolution is different from the output resolution. By default, the transform leaves scaling to the printer. The exceptions are images that are being halftoned, which are always scaled in the transform, and images that have different resolutions on the X and Y directions. The **-alg** option can be used to instruct the transform to do internal image scaling. Options **-alg**, **-clean**, and **-ink** select and configure various scaling algorithms used by the transform.

If possible, **tiff2afp** just rewraps the TIFF raster data in MODCA-P headers. This does not change the compression algorithm used in the data, even though it might be different than the output compression algorithm specified on the command line. The data is rewrapped only if no changes are to be made in the image and if the compression algorithm is supported by the IOCA standard. Besides the uncompressed data, the bi-level compression algorithms supported both by TIFF and IOCA are ITU-TSS T.4 Group 3 and T.6 Group 4 algorithms.

For 8-bit gray scale and 24-bit color images, both TIFF and IOCA FS11 support JPEG compression algorithms. However, TIFF and JPEG standards have different subsampling defaults than IOCA FS11. Thus, most 24-bit color images are not suitable for rewrapping, even if they use a JPEG compression algorithm and a color model supported by IOCA FS11. Also, JPEG is a lossy compression algorithm. Decompressing a JPEG image and then recompressing it again for output might result in reduced image quality. For that reason, the default is to use no compression for the gray or color output.

Be aware that not all the printers support all the recognized IOCA compression standards. To make sure that the transform decompresses the data and recompresses it using the specified algorithm, use the **-force** option. If the output image is IM1, the image is always decompressed and scaled in the transform.

The TIFF images are often divided into many segments for efficient memory handling. Some printers will terminate the printing in error if the page is too complex. For that reason, **tiff2afp** decompresses, repartitions, and compresses the data if it determines there are too many segments in the picture.

Parameters

tiff2afp behavior is governed by many parameters. The parameters are set by this hierarchy (least significant first):

- Internal defaults
- Environment variables
- Configuration file
- Command-line arguments

Command line arguments

- Options and input file names can appear on the command line in any order.
- When you run **tiff2afp** as a standalone transform, the blank between option and value is optional (for example, both `-inkblack` and `-ink black` are valid).
- When you use the `-o` flag of the **enq**, **lp**, **qprt**, or **lprafp** commands to pass options to **tiff2afp**, no blank is permitted between option and value (for example, `-o-inkblack` is valid, but `-o -ink black` is not).
- When you use the **other-transform-options** attribute on the **pdpr** command to pass options to **tiff2afp**, any string containing a blank must be surrounded by single quotes (for example, both `other-transform-options=-inkblack` and `other-transform-options='-ink black'` are valid).
- All values except file names are case-insensitive.
- If an option is specified multiple times, the last specification remains in force.
- If multiple configuration file names are given, they are processed in order.

Configuration file

The configuration file has entries of the form *option=value*, where each pair must be on a separate line. Options and other syntax are the same as for the command line arguments and the option names are the same. Input files and configuration files cannot be specified in the configuration file (that is, nested configuration files are not supported). In the case of options without values (for example, `-inv`), the equals sign must be present.

Some command line options, for example, `-calib`, cannot be used in the configuration file or as environment variables. Options available only on the command line are noted as such in their descriptions.

If you do not specify a configuration file on the command line with the `-C` option, the transform checks for the existence of the default configuration file, `/usr/lpp/psf/tiff2afp/tiff2afp.cfg`. If this file exists, the transform uses it as the configuration file.

Here is an example of a valid configuration file:

```
scale = letter
r= 300
o = -
inv=
alg=afp
```

Note: The spaces around the equals sign (=) are optional. In this example, the option-value pair `o = -` means that the default output file is the standard output. Output file name computation has been disabled.

Environment variables

Environment variables have the form **TIFF2AFP_option**, where *option* is the same as on the command line and the configuration file.

Some command line options, for example, **-calib**, cannot be used in the configuration file or as environment variables. Options available only on the command line are noted as such in their descriptions.

For example, to achieve the same effect as the configuration file in the last example, these statements have to be executed in the calling shell:

```
export TIFF2AFP_scale=letter
export TIFF2AFP_r=300
export TIFF2AFP_o=-
export TIFF2AFP_inv=" "
export TIFF2AFP_alg=afp
```

There must be some value set for each desired option. For options that do not take a value, specify a blank surrounded by double quotes, for example:

```
export TIFF2AFP_inv=" "    correct
export TIFF2AFP_inv=      has no effect
```

Resource search path

For resource files, such as scan offset files and grayscale correction files, the transform searches the current directory by default. You can use the **-respath** option to specify a list of directories to be searched for such files. This resource path does not apply to the configuration file.

Limitations

- Only Huffman coding with baseline DCT JPEG algorithm is supported.
- Old style JPEG specification (Photometric Interpretation 6) is not supported. Photometric Interpretation 6 is obsolete and will be removed from the TIFF specification. Use the Photometric Interpretation 7 to incorporate the JPEG compressed images in TIFF files.
- Additional color information, such as alpha data, is disregarded.
- Transparency maps are ignored.
- At most 8-bit gray scale and 24-bit color are supported.

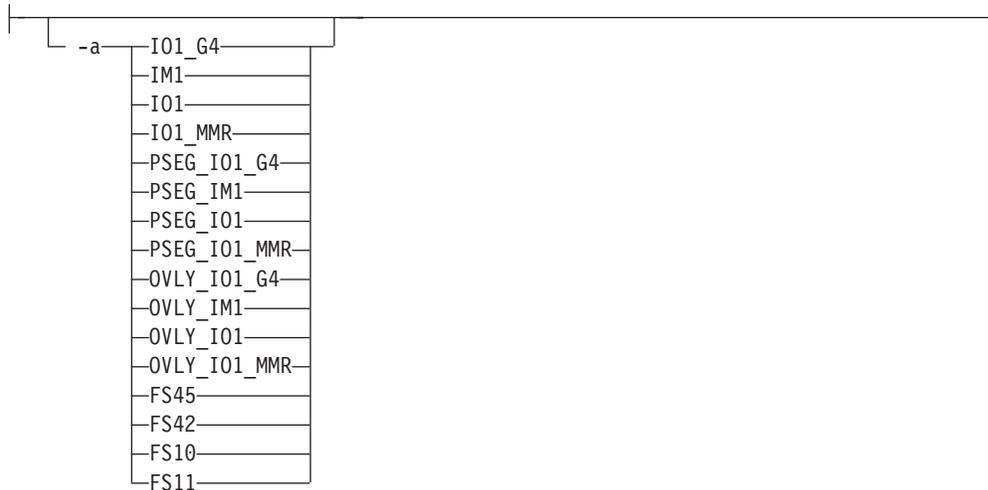
Acknowledgments

This software is based in part on the work of the Independent JPEG Group.

Options and values

`@FileList`

Specifies a name of a file that contains a list of files to be processed by the transform. If the @ option is present, the output file defaults to standard output, even if the list of files contains only a single entry. Multiple @ options are allowed. Also see the **-f** and **-z** options. The @ is not preceded by the dash, and is implemented to maintain compatibility with the **ps2afp** transform.



- Choice of the output image type. The first syntax selects between the IOCA FS 10 (**ioca**, **ioca10**), IOCA FS11 (**ioca11**), IM1, PostScript Level 2 (**PS.2**), IOCA FS42 (**ioca42**), and IOCA FS45 (**ioca45**) output. IOCA FS10 and IM1 yield bi-level images, while IOCA FS11 results in 4-bit or 8-bit gray or 24-bit color output (see option **-outbits**). Currently, the only product that supports IOCA FS11 is AFP Workbench. IOCA FS42 can contain either bi-level or 4-bit banded CMYK image at 1-bit per band. IOCA FS45 is a superset of FS42 that also contains 32-bit banded CMYK images, compressed with either JPEG or LZW algorithms. The output compression algorithm is set with the **-cmp** option. To set the page type (page, overlay, page segment, or object), use the **-pagetype** option. FS45 produces IOCA FS45 output.

The second syntax is to maintain compatibility with the **ps2afp** transform, and sets the image type (**IO1** for IOCA FS10 or **IM1** for IM1 output), compression (**G4** for Group 4 or **MMR** for Group 3), and page type (**PSEG** for page segment or **OVLY** for overlay). If **PSEG** or **OVLY** is not specified, the output is a printable page. If no compression algorithm is specified, the output is not compressed. The second syntax cannot be used for IOCA FS11 output.

Some older printers do not support IOCA images. In such cases, the IM1 output type should be chosen. IM1 images are uncompressed, and thus, use more space. The processing might also take longer since the IM1 image cannot be scaled by the printer, so internal scaling algorithms must be used. See option **-alg**.

The default is **ioca** for IOCA FS10 output compressed using the Group 4 algorithm.

This option is similar to the **image-out-format** document attribute on the **pdpr** command.



- Choice of the scaling and halftoning algorithms. You can specify multiple choices, separated by commas, for one **-alg** option. The effect is the same as specifying multiple **-alg** options. For example, **-alg htfs,htcal** is equivalent to **-alg htfs -alg htcal**.

The scaling algorithms are:

- If **afp** is chosen, the scaling is done using the default algorithm in the printer. This makes the transform much faster. If the image must be reduced, however, this algorithm might drop some information from the image, such as thin lines.
- **alg1** activates the internal scaling algorithm to scale the image explicitly to the specified size. This algorithm is guaranteed not to discard any ink. “White space” in the image, however, might be lost (that is, features close to one another might merge). This algorithm makes the transform run longer, and might occasionally make for a “dirty” image, since the occasional “noise pixels” in the scanned images tend to be amplified.
- **alg2** activates the more flexible version of **alg1**. If this algorithm is selected, option **-clean** can be used to specify the amount of ink “cleanup” to be performed. Option **-clean 0.0** makes the algorithm **alg2** perform like **alg1** (albeit more slowly). Increasing the value specified in **-clean** discards more and more ink, until **-clean 1.0** results in a blank page.
- **alg3** activates a scaling algorithm that works by deleting or duplicating rows and columns in the image. This is a fast general-purpose algorithm.

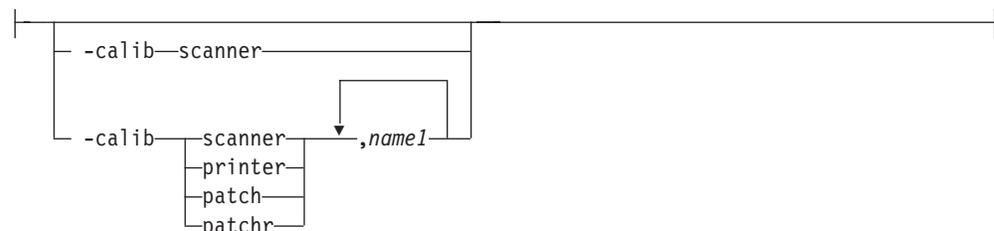
For bi-level images, the default is **afp** if the output image type is IOCA and **alg3** if the output image type is IM1. For color images with bi-level output, the scaling is always done before the halftoning algorithm. If a grayscale or color output is chosen (**-a ioca11**), this option is ignored and the algorithm is set to **afp**.

The halftoning algorithms are:

- **htod1** uses an ordered dither with a screen derived from the value of the **-thresh** option. The default is an 85 line per inch screen.
- **htfs** uses the Floyd-Steinberg algorithm.
- **htcal1** recalibrates the halftoning algorithm for each image. **htcal1** forces the transform to read the whole image into memory and requires an additional pass through the image. It should be used only for very light or very dark images.

The default is **htod1**. Each halftoning algorithm uses a different internal default calibration curve. If the automatic calibration is turned on, a still different set of calibration curves are used.

See options **-clean**, **-gcorr**, **-ink**, **-paper**, **-scale**, **-thresh**, **-l**, **-w**, **-x**, and **-y**.



- Transform calibration for the scanner or printer. If **scanner** is specified, **-sgcorr** must be present. If **printer** is specified, **-sgcorr** might or might not be present. If **patch** or **patchr** is specified, **-sgcorr** (if present) is ignored. Detailed explanation of the calibration process is beyond the scope of this entry.

You cannot specify **-calib** in the configuration file or as an environment variable.



- TIFF image files can contain both full and reduced resolution versions of each image. The transform can output both versions, full resolution only, or reduced resolution only, depending on the value for this option. The default is to output the full resolution images only.

See the **-mp** and **-nomp** options.



- The name of a configuration file containing option-value pairs. If multiple **-C** options are given on the command line, they are processed in order. Specifying the configuration file on the command line overrides any specification done using the **TIFF2AFP_C** environment variable.

The default configuration file is **/usr/lpp/psf/tiff2afp/tiff2afp.cfg** for AIX and **install_path\tiff2afp\tiff2afp.cfg** for Windows.



- The internal scaling algorithm **alg2** allows for variable thresholding. The scaled pixel is declared painted if the fraction of its area greater than the threshold is painted in the original image. The value **x.xxx** is a real number between zero and 1 inclusive and gives this threshold.

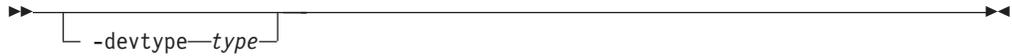
If the option **-clean 0.0** is issued, **alg2** behaves like **alg1** and turns on a pixel as long as any part of the pixel has been painted in the original image. **-clean 1.0** results in a blank image because the output pixels are never painted.

Setting **-clean 0.95** and **0.999999** turns on the pixels that had essentially all the area painted in the original picture. Depending on the data, most of the image will probably be preserved. Increasing **-clean** by a small amount to **1.0** erases the image. If the scaling algorithm is not **alg2**, this option is ignored. The default is **-clean 0.5**.



- Choice of the output image compression algorithm:

none Uncompressed output



- Specify the device type of the actual device.



Specifies the name of a file that contains a list of files to be processed by the transform. If the `-f` option is present, the output file defaults to standard output, even if the list of files contains only a single entry. Multiple `-f` options are allowed. See also options `@` and `-z`.



- Determines whether the printer behavior will be position-and-trim or scale-to-fit if the image is too large to fit on the paper. The default is **trim**.
This option is equivalent to the **image-fit** document attribute on the **pdpr** command.

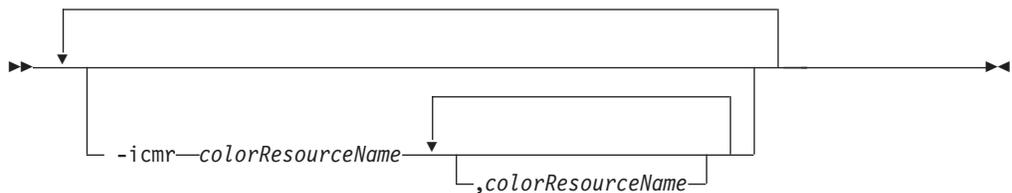


If present, this option forces **tiff2afp** to decompress and recompress the image, regardless of other factors.



- Specifies a file with gray scale mapping table for halftoning of the gray scale and color images to bi-level for output. The mapping table must be provided to compensate for the printing characteristics of the particular output device and paper type, such as dot gain. This file must contain either:
 - 256 real numbers, one for each level of gray in the 8-bit gray scale image
 - The PostScript **settransfer** operator

The algorithm converts every image to 8-bit gray scale before applying the halftoning algorithm. The default internal mapping table has been optimized for the 600-pel InfoPrint 4000 laser printer. You shouldn't change this unless you know what you are doing. See also options `-alg` and `-thresh`. PostScript code submitted using the `-thresh` option can have the same effect as `-gcorr`.



- Specifies one or more input or audit color resources. The color resources can be either ICC Profiles or Color Management Resources (CMRs). If you specify two

or more **-icmr** flags on a transform command line, InfoPrint will concatenate the resources together. If two or more resources that are specified by the **-icmr** flags are for the same color space, InfoPrint will use the last specified resource.



- This option is used only with scaling algorithm **alg1** or **alg2**. The TIFF images can be either black on white or white on black. The internal scaling algorithm must know which, because “ink” is preserved at the expense of “non-ink”. The default value, “black”, indicates that the image is black on white.

If you use the option **-inv** to print the reversed image, the inversion is done as the data is read by the transform, before any processing is done. The black or white must thus be specified in the terms of the printed image, not in the terms of the input TIFF image.

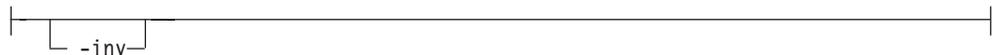


- Specifies whether the output Color Management Resource (CMR) will be placed inline with the data stream. If you specify two or more **-inline** flags on a transform command line, InfoPrint will use the last specified value.

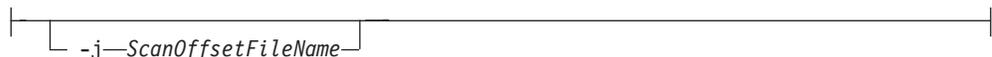


- Specifies the rendering intent. You can also use the **-pragma** option to specify the rendering intent by setting:
-pragma colorRendering=relative

If you specify two or more **-intent** flags on a transform command line, InfoPrint will use the last specified value.



Reverses the image. Areas that are black in the original image become white and vice versa. The reversed image can be either black on white or white on black, depending on the original image.



- Sometimes input images must be shifted to get the desired positioning on the page. The scan offset file contains the directions for shifting. The file has the format of:

```

[attribute]
values
:
:
values
[attribute]
values
:
:
values

```

Currently, the recognized attributes are **[Units]** (values **millimeters**, **mm**, **inches**, **in**, **points**, **dots**, **pels**) **[Page_Offset_Type]** (values **crop** or **grow**) and **[Page_Offsets]**. The values for page offsets are in the format *FileName,Hhoriz,Vvert*. Each entry refers to a file. The file names must be specified (or at least the leading comma must), but are currently ignored and the offset factors are applied to each file in turn. The same factors are applied to each image in the file. The *horiz* and *vert* values are the amount that the image is to be shifted in the horizontal and vertical direction. The positive directions are down and right (that is, the origin is in the left upper corner of the page). The default units are millimeters. Like the values for the **-crop** option, the shifts are specified in the output space context.

Extra spaces and blank lines are allowed. Unrecognized attributes and their values are ignored. See the sample file **shift.sample**.

If the image is moved left or up, part of the bitmap is removed. If the image is moved down or right, removal is governed by the value of the **[Page_Offset_Type]** attribute. If **crop** is chosen, the transform removes the requisite amount from the right and bottom edges of the bitmap. If **grow** is chosen, the transform does not remove any space. The bitmap grows and the trimming, if any, is left to the printer. If the **-fit trim** option (the default) is specified, **[Page_Offset_Type]** defaults to **grow**. For **-fit scale**, **[Page_Offset_Type]** defaults to **crop**.



Specifies the paper length. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. If the unit is dots, decimals (if any) are ignored. The default paper length is 11 inches. See options **-w** to set the paper width or **-paper** to set both dimensions at the same time.



- Specifies the filename for the color conversion lookup table file. Fast and accurate conversion between color spaces can be implemented as a multidimensional lookup with an interpolation algorithm for missing nodes. The file specified with the **-lut** option must contain a valid lookup table for the conversion between the input and output color spaces. The lookup tables currently come in either ASCII (.lut) or binary formats (.lutbin).

If the optional colorspace tag is not provided, the table is assumed to match the input image. If there is a serious mismatch between the table and the image (for example, the table is RGB to CMYK and the input image is CMYK), the **-lut** is ignored for the image. Otherwise, it is used to convert the colors and any mismatch (for example, using a **lab** table for **rgb** data) results in corrupted output.

If the colorspace tag is provided, the transform uses the lookup table only for the relevant colorspace image. Multiple **lut** tables can be specified if you are unsure of the input colorspace. If the **lut** files are binary, parsing extra files does not impose much of a performance penalty.

Example:

```
-lut 3170-005.rgb.cmyk.perceptual.lutbin,rgb
```

Where 3170-005 is the model-type; **rgb.cmyk** is for RGB images; and **perceptual** is the **color-rendering-intent** value.

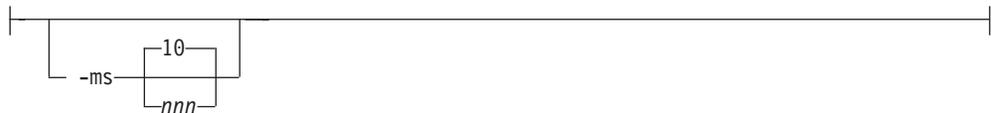
With InfoPrint Manager for AIX, filenames are listed in `/usr/lpp/psf/config`; and with InfoPrint Manager for Windows, filenames are listed in `install_path\config`.



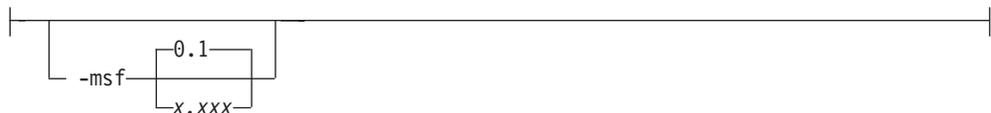
Limits the amount of memory available to **tiff2afp**. *nnn* is the maximum amount of memory in kilobytes. A value of **0** means there is no memory limit. *nnn* can be set from **0** to the maximum value that AIX allows. The default is **0**.



Each TIFF image is supposed to have a marker bit set if there are multiple TIFF images in the file. This marker is sometimes missing, even if there are multiple images present in the file. The **-mp** option instructs the transform to behave as if the multipage marker bit were set. The transform then processes all the images in the file, subject to the **-p** and **-choice** options. The default is to leave the marker bit unset (**-nomp**).



Requires that at least *nnn* kilobytes of disk space be available on the file system that contains the output file. This limit is enforced every time data is written to the output file. If the output is standard output, this option is ignored. The default is **10**. See option **-msf**.



The number *x.xxx* is a real number between 0 and 1. It denotes the minimum space that must be left unused on the file system containing the output file. The space is given as a fraction of the total space in the file system. This limit is enforced every time data is written to the output file. If the output is standard output, this option is ignored. The default is **0.1**. See option **-ms**.

-nomp See **-mp**

-nosniff
See **-sniff**.

-noterm
See **-term**.

-nov See **-v**.



Optional output file name. Specify **-** for standard output.



- Specifies an output color resource. The color resource can be either an ICC Profile or a Color Management Resource (CMR). If you specify two or more **-ocmr** flags on a transform command line, InfoPrint will use the last specified value.



- Specifies how the output AFP will be tagged with color information. The allowed values are:

none There will be no tagging in the output AFP.

normal

InfoPrint will use the specified **-ocmr** value to tag the output AFP as an input (audit) Color Management Resource (CMR).

passthru

InfoPrint will use the specified **-ocmr** value to tag the output AFP as both an input (audit) CMR and an output (instruction) CMR.

If you specify two or more **-otag** flags on a transform command line, InfoPrint will use the last specified value.



Sets the number of bits per pel in output. This value must be **1**, **4**, **8**, or **24**. If the output image type is IOCA FS10 or IM1, the number of output bits is set to **1** and this option is ignored. For IOCA FS11 output, the default is **24**. This number represents the maximum number of bits used per pel. Thus, even if the number of bits is set to **24**, a 4-bit gray scale image is still displayed in 4-bit format.



Sets the output color model to RGB, YCbCr, or YCrCb if the image type is IOCA FS11 and the number of output bits is 24. Otherwise, this option is ignored. The default is **ycbcr**.



- Specifies the port number **tiff2afp** uses to make a connection with the Transform Manager (set by the **-S** flag). When the **-S** flag is not specified or the **-S** flag specifies **none**, the **-P** flag is ignored.

6986 The port number if InfoPrint Manager is connected to Transform Manager.

Note:

1. You can only access secure ports, 924 to 1023, with **root** user authority.
2. To find out which ports are already being used on your system (although they might or might not be active), look in the **/etc/services** file.



- Specifies that the output should only contain the specified pages. If no **-p** option is given, all the pages are output (but see the **-choice** option for printing full or reduced resolution images of each page). Multiple **-p** options can be specified. Their effect is cumulative. Regardless of the order in which the pages are specified, they are always printed in ascending order.

- The recognized values are:

even Print all even pages

odd Print all odd pages

nn Print page *nn*

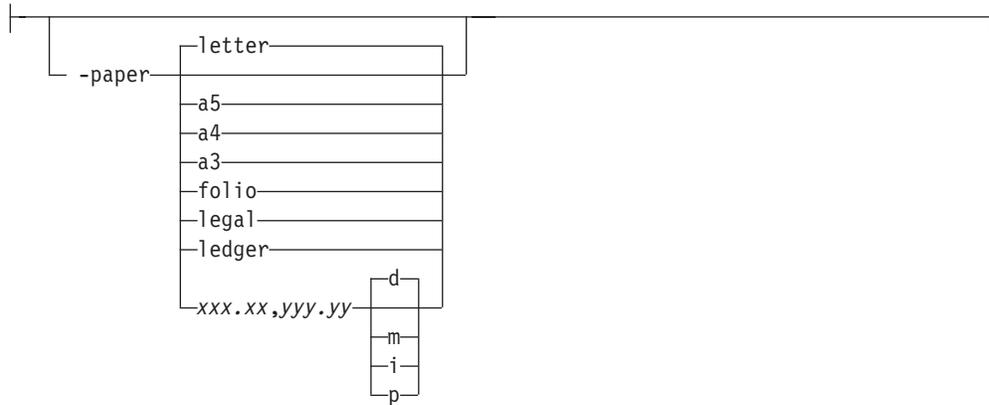
nn-mm Print pages *nn* to *mm*, inclusive.

nn- Print all pages starting with page *nn*

Pages are numbered starting with 1.



Sets the output page type to be page, overlay, page segment or object. The same page type is set for every page in the output. Thus, unless you use option **-p** to select a single page, multiple page segments or overlays are stored in the output file. The default is **page**. See option **-a**.



- Specifies the output paper size. The supported values are:
 - a3** A3 format (297 by 420 mm or 11.69 by 16.54 inches)
 - a4** A4 format (210 by 297 mm or 8.27 by 11.69 inches)
 - a5** A5 format (148 by 210 mm or 5.83 by 8.27 inches)
 - letter** 8.5 by 11 inches (216 by 279 mm)
 - folio** 8.5 by 13.0 inches (216 by 330 mm)
 - legal** 8.5 by 14.0 inches (216 by 356 mm)
 - ledger** 11.0 by 17.0 inches (279 by 432 mm)

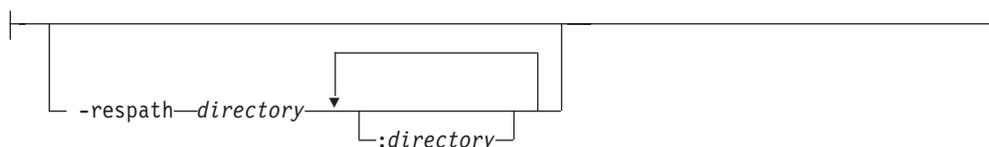
xxx.xx,yyy.yy

Horizontal and vertical image dimensions. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**.

- The default paper size is letter. If **-paper** is not used, the paper size is increased, if necessary, to contain the output image.
- See options **-l**, **-w**, and **-scale**.



- The output device resolution, specified in dots per inch. The default is **600**. This option is equivalent to the **default-printer-resolution** document attribute on the **pdpr** command.



Sets the search path for resource files, such as the scan offset files and gray scale calibration curve files. If a resource file name is specified as a relative name (does not start with a /), the transform searches every directory in the path, in the order specified in the path, until it finds the file (or fails). See options **-j** and **-gcorr** for scan offsets and gray scale calibration curve. The default is the current directory.



- The image is rotated in the clockwise direction by the amount specified. The default is zero, that is, no rotation.

If **p** is specified, the transform sets the output data stream in such a way that the printer performs the actual image rotation. If **i** is specified, the transform rotates the output bitmap. When **i** is chosen, the transform takes much longer to run and uses much more memory. If no letter is specified, the default or any previous value (such as the value specified in the configuration file) remains in force. The default is **p**.



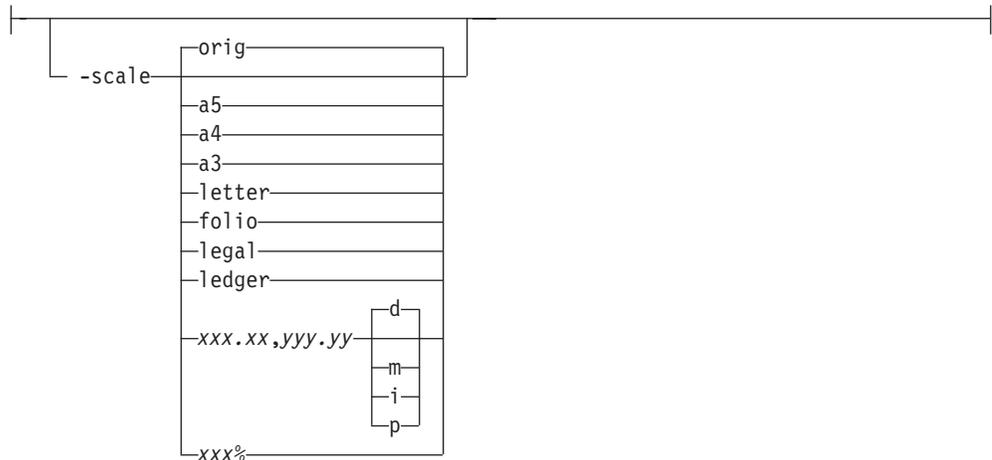
Specifies the name of the system on which the Transform Manager is running. The value is:

ServerName

Any valid workstation name on which the Transform Manager is installed and running. The name is defined in the **/etc/hosts** file or by a name server, and can be a nickname like **molly**, or a dotted decimal address like **9.99.9.23**.

none Processes the **tiff2afp** transform locally.

Note: When the **-S** flag is not specified or the **-S** flag specifies **none**, the **-P** flag is ignored.



- Specifies the output image size. The image is scaled to this size and centered in the area defined by the paper size and margin options. The supported values are:

orig Preserve the input image size, regardless of the printable paper area.

a3 A3 format (297 by 420 mm or 11.69 by 16.54 inches)

a4 A4 format (210 by 297 mm or 8.27 by 11.69 inches)

a5 A5 format (148 by 210 mm or 5.83 by 8.27 inches)

letter 8.5 by 11 inches (216 by 279 mm)

folio 8.5 by 13.0 inches (216 by 330 mm)

legal 8.5 by 14.0 inches (216 by 356 mm)

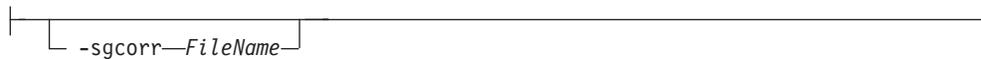
ledger 11.0 by 17.0 inches (279 by 432 mm)

xxx.xx,yyy.yy

Horizontal and vertical page dimensions. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**.

xxx% Magnification relative to the original image size. Numbers below 100% mean reduction, while Numbers above 100% mean enlargement. For example, **-scale 200%** causes the output image to be twice as long and twice as wide as the input image.

The default image size is **orig**.



- Specifies the name of the scanner-related calibration file. To use this option in the calibration process (with the option **-calib**), you must specify a single file name. If **-calib** is absent, this option is ignored.

A detailed description of **-sgcorr** is beyond the scope of this document.



- Turns automatic conversion to black on white for bi-level images on (**-sniff**) or off (**-nosniff**). The automatic conversion algorithm counts the number of 0 and 1 bits in the image. If there are fewer zeros, it assumes the printed features are represented by zeros (white on black), and inverts the image to be black on white. The detection and conversion are done after the conversion specified by the Photometric Interpretation tag is applied (if any).

This option is ignored if the image is not bi-level. The default is **-nosniff**.



- Disables (**-term**) or enables (**-noterm**) error recovery.
 - When error recovery is disabled, on encountering an error in a TIFF file, the transform terminates with an error message and a nonzero return code.

- When error recovery is enabled, the errors in TIFF files are treated as non-fatal. The transform tries to recover with the next image in the file, or with the next file. The return code is zero.

The default is **-noterm**.



Specifies a file that contains a PostScript Type 1 or Type 3 halftone dictionary. Alternatively, the PostScript code can specify the **setscreen** operator instead of a Type 1 dictionary. You can use the halftone cell in the dictionary to overwrite the default ordered dither clustered dot halftone cell. If the PostScript code contains a transfer function, either in the halftone dictionary or specified by the **settransfer** operator, the current gray scale correction curve is overwritten as if **-gcorr** were used.



- Turns verbose mode on (**-v**) or off (**-nov**).
 - When verbose mode is on, the transform prints a message as it opens each resource file, then echoes the command line, then prints a message for each file name as it is processed.
 - When verbose mode is off, the transform prints only error messages.

The default is **-nov**.



Specifies the paper width. The optional units are **dots** (pels), **millimeters**, **inches**, or **points**. The default unit is dots. The default page width is 8.5 inches. See options **-l** to set the paper length or **-paper** to set both dimensions at the same time.



- The TIFF data stream is by definition non-sequential. Thus, input from **stdin** must be cached on disk before it can be processed. This option specifies which directory to use for the caching of the standard input. If this option is absent or the directory cannot be opened, the transform first tries to use **/var/psf/tiff2afp** as the working directory and, if **/var/psf/tiff2afp** is absent, uses **/tmp**.

The **stdin** cache file is never visible to you because it is immediately unlinked after creation. Thus, the cache file is always deleted when **tiff2afp** finishes execution, even if **tiff2afp** is killed or otherwise terminates in error.



Specifies the left margin. The optional units are **d**ots (pels), **m**illimeters, **i**nches, or **p**oints. The default unit is dots. The default is zero (no margin).



Specifies the top margin. The optional units are **d**ots (pels), **m**illimeters, **i**nches, or **p**oints. The default unit is dots. The default is zero (no margin).

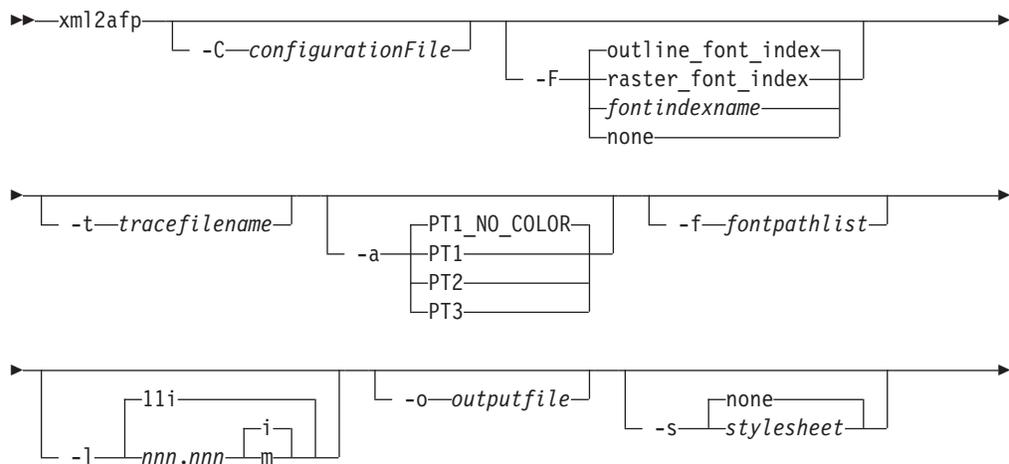


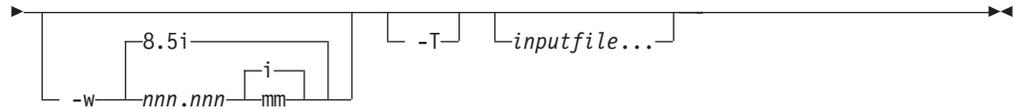
Signifies that a list of files to be processed is submitted from standard input. See also options `-f` and `@`.

xml2afp transform: transforms XML data to AFP

Syntax

xml2afp command





Description

The **xml2afp** command transforms a Extensible Markup Language (XML) data stream file into an AFP data stream file.

The PSF DSS runs the **xml2afp** command automatically whenever:

- InfoPrint identifies the format of a document in a print job as XML.
- You use the **pdpr** command to specify **document-format=xml** with the **-x** flag or in an attributes file.
- You specify a data type of **-odatatype=xml** with an AIX print command (**enq**, **lp**, or **qprt**) or with the **lprafp** command.

The **xml2afp** transform can be invoked from the command line, and the transform subsystem can be configured to invoke the **xml2afp** transform. Most **xml2afp** jobs will be submitted through the command line from an automated system that pulls the XML data from a database and uses existing style sheets.

For more information about the **xml2afp** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Automatic invocation

The PSF DSS automatically invokes the **xml2afp** transform command whenever you submit a XML file for printing. You can pass options to **xml2afp** using the **other-transform-options** attribute on the **pdpr** command or the **-o** flag of the AIX print commands and the **lprafp** command. You can also pass options to **xml2afp** through InfoPrint Submit Express or InfoPrint Job Ticketer with the Print-on-Demand feature of InfoPrint Manager. Parameters that are not supported, such as **-a PT1**, can be passed in InfoPrint Submit Express by clicking **Advanced** and entering them in the **Transform options** or in InfoPrint Job Ticketer by clicking **Transform Settings** and entering them in the **Transform options**

Limitations

The **xml2afp** transform has these limitations:

- Support for image formats other than MO:DCA page segments, MO:DCA overlays, and IOCA images is not included.
- Support for the Calibration GUI and halftones is not included.
- The XSL style sheet must be on the server where the transform is invoked or at a URL accessible from the InfoPrint Manager server.
- The transform must have access to the AFP and OpenType fonts used by PSF to print the job. The transform requires the fonts to get metrics for the different characters, and this path is specified in the configuration file or on the command line.
- To use the **xml2afp** transform with default configuration, you must install the appropriate font features for either InfoPrint Fonts, Version 1.1.0, or AFP Font Collection, Version 2.1.0.

- Specify *Inputfile* as the last argument on the command line for the **xml2afp** transform.

Flags and values



- Specifies the path and file name of the customized configuration file InfoPrint uses with the transform. The configuration file contains option-value pairs. If you specify multiple **-C** options on the command line, the configuration files are processed in the order that you specify them.

If you specify the **-C** flag with an AIX print command (**enq**, **lp**, or **qprt**), or with the **lprafp** command, specify the fully qualified name of the file, including its path; for example:

With AIX

`/usr/lpp/psf/xmltransform/myfile.cfg`

With Windows

`install_path\xmltransform\myfile.cfg`



- Specifies the path and file name of the customized font index file InfoPrint uses with the transform. The font index files specify mappings between fonts (such as, sizes and weights) and character sets and code pages. If you specify the **-F** flag with an AIX print command (**enq**, **lp**, or **qprt**), or with the **lprafp** command, specify the fully qualified name of the file, including its path; for example:

For AIX

`/usr/lpp/psf/xmltransform/myfontfile`

For Windows

`install_path\xmltransform\myfontfile`

- The font index files built into **xml2afp** include one that specifies outline fonts (`outline_font_index`) and one that specifies raster fonts (`raster_font_index`). You can define your own font index file or use the ones supplied with **xml2afp**.
- The default font index file is `outline_font_index`.



Requests a trace for diagnostic purposes. Trace output is written to the specified file. A fully qualified path should be specified. If a relative path is provided, the path is relative from the directory where the **xml2afp** transform is invoked.

A dash can be specified for *tracefilename*. When a dash is specified, the trace is written to standard error.



- Indicates the level of PTOCA supported by the target printer. This is used to generate proper color commands.
- Values are:

PT1_NO_COLOR

Converts all color commands to black. Use this option when a black and white printer is used that does not provide grey scaling simulation of colors. Typically, older printers do not provide this function, but newer printers do provide this function.

The default is **PT1_NO_COLOR**.

- PT1** Uses the basic PTOCA set color commands. Use this option on newer black and white printers that provide grey scale simulation of colors and printers that support highlight color.
- PT2** This option is functionally equivalent to **PT1**, and it is provided for completeness with the PTOCA Architecture.
- PT3** Uses the extended PTOCA set color commands. Use this option on printers that provide full process color support.



Indicates the path or paths to the AFP font resources to use to print the output file. Information from the AFP font resources is used to format the output file.

If multiple paths are specified, they must be delineated by colons on AIX and semi-colons on Windows.

There is no program default, although a configuration default is provided in the configuration file.



- Indicates the length of the page on which the output is printed. Specify a number followed directly by one of these units:
 - i** inches, the default
 - m** millimeters
- For example:
 - l 17i
- The default is 11 inches.
- The maximum value is 22.75i or 577.97m.



Specifies the output path and file into which the transformed files are to be written. If you do not specify the **-o** flag or if you specify a dash (-), InfoPrint writes the results to standard output.



- Specifies the name of the stylesheet used to transform XML data to XSL-FO data or whether no style sheet should be used.

Values are:

none Specifies that no style sheet is to be used.

The default is **none**.

stylesheet

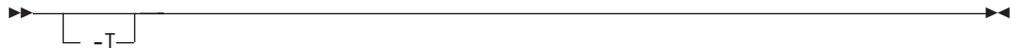
Specifies the file or URL for an XSL style sheet that is used to transform XML data to XSL-FO data. For example:

`http://www.infoprint.com/report.xml`

`ftp://ftp.infoprint.com/report.xml`

This option should only be specified when the input file contains XML data that must be transformed according to a specified style sheet; not when the input file contains XSL-FO data.

- When you use the **xml2afp** as a standalone transform, it runs with the user's authority. When the **xml2afp** runs as an InfoPrint Manager server transform, it runs with InfoPrint Manager's authority. Therefore, if the transform is running under InfoPrint Manager, **xml2afp** must be able to access the file or resource named by the style sheet URL. For example, if `report.xml` is the style sheet file a URL refers to, its file permissions must allow others to read it.



Specifies that the transform should use OpenType fonts found in the resource path. This generates MOD:CA that uses the OpenType AFP structured fields. The output only prints on IPDS printers that support OpenType fonts.

If the font specified in the XML input file is not an OpenType font, the font index file, if specified, is used to map the font to a FOCA font.



- Indicates the width of the page on which the output is printed. Specify a number followed directly by one of these units:

i inches, the default

m millimeters

- For example:

`-w 11i`

- The default is 8.5 inches.
- The maximum value is 22.75i or 577.97m.



Specifies one or more input files to be transformed to AFP. An input file contains either XML data with no presentation information or XML data with XSL formatting objects (XSL-FO). If you specify multiple input files with a style sheet, each file is transformed according to the style sheet. Therefore, it is recommended that when you specify a style sheet, all input files contain XML data only.

If you do not specify an input file name, or if you specify a dash (-), the `xml2afp` transform uses standard input for the input file. If you specify more than one input file name, the `xml2afp` transform writes the output to a single AFP data stream that consists of multiple documents.

Note: The *Inputfile* must be the last entry on the command line.

The `xml2afp` configuration file

The sample `xml2afp` configuration file is provided in `/usr/lpp/psf/xmltransform/xml2afp.cfg` on AIX and `install_path\xmltransform\xml2afp.cfg` on Windows. These items are set in the file and can be modified:

1. The default location of the AFP fonts.
2. The default paper size.

Additionally, defaults for all the `xml2afp` options can be set in the configuration file.

The syntax of the configuration file is exactly the same as the command line syntax with these additional rules:

1. Blank lines are ignored.
2. All data on a line after a pound sign is ignored. The pound sign can occur anywhere on a line.
3. To include a pound sign in parameter data, it must be escaped; that is, it must be preceded by a backwards slash.
4. White space before and after parameter data is removed.
5. Parameter data on successive lines is concatenated with a single space between them.
6. Parameters can span lines as long as they follow rules 1 through 5.

The font index file for `xml2afp`

The sample font index file for `xml2afp` is provided in `/usr/lpp/psf/xmltransform` on AIX and `install_path\xmltransform` on Windows. The samples include an `outline_font_index` and a `raster_font_index` that you use to map XML font names to both outline FOCA fonts and raster fonts in the font path.

Note: If you are using OpenType fonts, the font index files are not necessary.

A font is referenced in XSL-FLO using these attributes:

family
size
style
weight

Font index files describe AFP fonts using these attributes. In addition, a map is defined that maps unicode code points into AFP code points.

The font index file consists of a sequence of key and value pairs, separated by whitespace (such as a space, tab, or newline). Comments can be inserted anywhere between the delimiters `/*` and `*/`. You can also use `//` to indicate that the remainder of the current line is a comment.

The keys and their meanings are:

Key Meaning

map Select the named character map, creating it if it does not exist. A character map is used to map unicode code points to AFP code page names and code points. The default is **default**.

codepage

Set the code page to use for subsequent character mappings.

to End a range of mapped unicode code points. The value must be an integer representing a valid unicode code point, and it must be greater than the beginning value of the range given by the closest preceding value for the **char** keyword. The value must be a valid unicode code point.

at Creates a mapping using the closed range given by a preceding **char** value and an optional **to** value. The unicode characters from begin to end are mapped to the AFP code point range from the **at** value to the **at** value + end - begin, inclusive, using the closest preceding **codepage** value. This value must be an integer from 0 to 65535.

family Establishes the current font family name. The value must be a string containing no whitespace characters.

size A font size, expressed as a floating point value giving the vertical size of the font, in points (1/72nds inches). Size must be omitted when defining outline technology fonts, since they can take any size.

style A font style. The value must be one of these keywords:

- normal**
- italic**
- oblique**
- backslant**

The default is **normal**.

weight

A font weight. The value can be one of these keywords:

- normal**
- bold**

The value can also be one of the values between 100 and 900 inclusive, in increments of 100. The keyword **normal** is equivalent to 400, and the keyword **bold** is equivalent to 700. The default value is **normal** (400).

charset

Define a font with the preceding values given for the font properties (family, size, style, and weight), or default values if no preceding property values have been established. The currently selected character map is associated with the font, and it is used for mapping unicode code points when the font is selected. If modifications are made to the map later in the file, those changes do not affect the defined font.

alias Establish a font family alias for the current family.

Of the keywords listed, only two are active: **at** and **charset**. The other keywords collect values used when an active keyword is found. This allows for a variety of possible arrangements for a font index. For example:

```
family courier
alias monospace
size 7
weight normal
style normal
charset C0420070
style italic
charset C0430070
weight bold
style normal
charset C0440070
style italic
charset C0450070
```

Defines the same set of fonts as:

```
family courier size 7 weight normal style normal charset C0420070
family courier size 7 weight normal style italic charset C0430070
family courier size 7 weight bold style normal charset C0440070
family courier size 7 weight bold style italic charset C0450070
alias monospace
```

But might be considered more difficult to read.

Examples

To run the **xml2afp** transform through InfoPrint Manager, the stylesheet must be specified with a full path, so that the InfoPrint Manager server can find it when the transform is run. Specifically, if the path has spaces in it, there must be quotes around it, and backslashes must be either escaped with another backslash, or you can use forward slashes. This only applies to the stylesheet, not the xml file. For example:

```
pdpr -p ld -x document-format=xml
-x "xsl-style-sheet='file:c:/Program Files/InfoPrint Manager/xmltransform/test.xsl'" test.xml
```

When you run **xml2afp**, you can use either relative paths or absolute paths.

Using a relative path, enter:

```
xml2afp -o output.afp -s test.xsl test.xml
```

Using an absolute path, enter:

```
xml2afp -o output.afp -s c:\xslfiles\test.xsl c:\xmlfiles\test.xml
```

Files

For AIX:

```
/usr/lpp/psf/bin/xml2afp  
XML transform executable
```

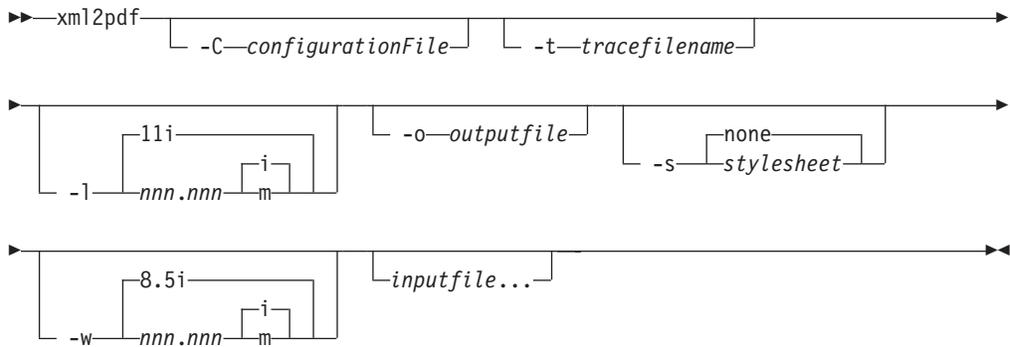
For Windows:

```
install_path\bin\xml2afp  
XML transform bat file
```

xml2pdf transform: transforms XML data to PDF

Syntax

xml2pdf command



Description

The **xml2pdf** command transforms a Extensible Markup Language (XML) data stream file into an PDF data stream file.

The **xml2pdf** transform can be invoked from the command line, and the transform subsystem can be configured to invoke the **xml2pdf** transform. Most **xml2pdf** jobs will be submitted through the command line from an automated system that pulls the XML data from a database and uses existing style sheets.

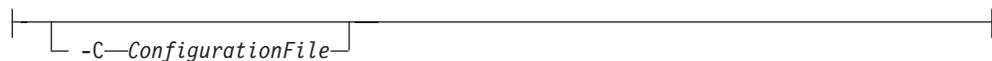
For more information about the **xml2pdf** transform, see “Working with Transforms” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.

Limitations

The **xml2pdf** transform has these limitations:

- Includes support for gif, jpeg, and bmp image formats.
- Support for the Calibration GUI and halftones is not included.
- The XSL style sheet must be on the server where the transform is invoked or at a URL accessible from the InfoPrint Manager server.
- If you specify multiple values for the same option, the **xml2pdf** transform uses the last value. The last value also takes precedence over the values in the configuration file.
- Specify *Inputfile* as the last argument on the command line for the **xml2pdf** transform.

Flags and values



- Specifies the path and file name of the customized configuration file InfoPrint uses with the transform. The configuration file contains option-value pairs. If you specify multiple `-C` options on the command line, the configuration files are processed in the order that you specify them.

If you specify the **-C** flag with an AIX print command (**enq**, **lp**, or **qprt**), or with the **lprpdf** command, specify the fully qualified name of the file, including its path; for example:

With AIX

`/usr/lpp/psf/xmltransform/myfile.cfg`

With Windows

`install_path\xmltransform\myfile.cfg`



Requests a trace for diagnostic purposes. Trace output is written to the specified file. A fully qualified path should be specified. If a relative path is provided, the path is relative from the directory where the **xml2pdf** transform is invoked. A dash can be specified for *tracefilename*. When a dash is specified, the trace is written to standard error.

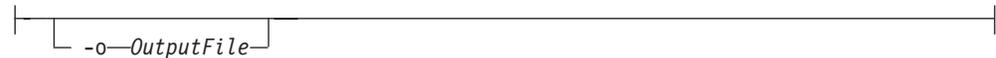


- Indicates the length of the page on which the output is printed. Specify a number followed directly by one of these units:

i inches, the default

m millimeters

- For example:
 - l 17i
- The default is 11 inches.
- The maximum value is 22.75i or 577.97m.



Specifies the output path and file into which the transformed files are to be written. If you do not specify the **-o** flag or if you specify a dash (-), InfoPrint writes the results to standard output. The output is a PDF Version 1.1 file.



- Specifies the name of the stylesheet used to transform XML data to XSL-FO data or whether no style sheet should be used.

Values are:

none Specifies that no style sheet is to be used.

The default is **none**.

stylesheet

Specifies the file or URL for an XSL style sheet that is used to transform XML data to XSL-FO data. For example:

http://www.infoprint.com/report.xml
ftp://ftp.infoprint.com/report.xml

This option should only be specified when the input file contains XML data that must be transformed according to a specified style sheet; not when the input file contains XSL-FO data.

- When you use the **xml2pdf** as a standalone transform, it runs with the user's authority.



- Indicates the width of the page on which the output is printed. Specify a number followed directly by one of these units:

i inches, the default

m millimeters

- For example:

`-w 11i`

- The default is 8.5 inches.
- The maximum value is 22.75i or 577.97m.



Specifies one or more input files to be transformed to PDF. An input file contains either XML data with no presentation information or XML data with XSL formatting objects (XSL-FO). If you specify multiple input files with a style sheet, each file is transformed according to the style sheet. Therefore, it is recommended that when specifying a style sheet, all input files contain XML data only.

If you do not specify an input file name, or if you specify a dash (-), the **xml2pdf** transform uses standard input for the input file. If you specify more than one input file name, the **xml2pdf** transform writes the output to a single PDF data stream that consists of multiple documents.

Note: The *Inputfile* must be the last entry on the command line.

Examples

The **xml2pdf** transform must be run outside of InfoPrint Manager. When you run **xml2pdf**, you can use either relative paths or absolute paths.

Using a relative path, enter:

```
xml2pdf -o output.pdf -s test.xml test.xml
```

Using an absolute path, enter:

```
xml2pdf -o output.pdf -s c:\xmlfiles\test.xml c:\xmlfiles\test.xml
```

Files

For AIX:

/usr/lpp/psf/bin/xml2pdf
XML transform executable

For Windows:

install_path\bin\xml2pdf
XML transform bat file

Chapter 3. InfoPrint object attributes

This section provides introductory information about InfoPrint object attributes and then describes each set of attributes as follows:

- “Attributes for actual destinations” on page 478
- “Attributes for auxiliary-sheet objects” on page 678
- “Attributes for documents and default documents” on page 686
- “Attributes for jobs and default jobs” on page 795
- “Attributes for logs” on page 862
- “Attributes for logical destinations” on page 868
- “Attributes for media” on page 900
- “Attributes for queues” on page 908
- “Attributes for resource contexts” on page 923
- “Attributes for servers” on page 926
- “Attributes for transforms” on page 964

Attribute Disclaimer

There are attributes and attribute values identified in the *ISO 10175-1 Information Technology - Text and Office Systems - Document Printing Application (DPA) Part 1: Abstract-Service Definition and Procedures* standard that InfoPrint does not support. If you use any of these non-supported attributes or values, InfoPrint might accept them. However, the results can be different than you expect. Sometimes, InfoPrint might issue a message indicating that it does not support the attribute or value.

About Destination Support Systems (DSSs)

The programs that the actual destination uses to send jobs to the output device are called the destination support system (DSS).

InfoPrint Manager for AIX supports these DSSs:

AIX DSS

The AIX DSS permits InfoPrint Manager for AIX to bridge to 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, usually **piobe**, or if the queue is a remote queue, **rembak**.

In the AIX DSS, users submit jobs to a destination from which an InfoPrint queue receives them. The InfoPrint physical printer submits jobs to the printer device using an AIX backend program.

You should attach this type of printer device as specified by its documentation before creating its associated InfoPrint actual destination.

BSD DSS

The BSD DSS permits InfoPrint Manager for AIX to bridge to existing UNIX/BSD printing subsystems. InfoPrint Manager for AIX sends jobs submitted to BSD physical printers as separate print requests to a local or remote print queue.

For local printer devices, InfoPrint Manager for AIX can use the **piobe** backend program. More typically, InfoPrint Manager for AIX 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 that 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.

PSF DSS

The PSF DSS permits InfoPrint Manager for AIX to bridge to the IBM Print Services Facility™ (PSF) printing subsystem. This DSS allows communication with output devices that have Intelligent Printer Data Stream™ (IPDS) functions. The PSF DSS is the most flexible DSS. It provides a single point of control and tracking for print jobs. InfoPrint Manager for AIX transforms jobs submitted to PSF destinations to IPDS or PCL before sending them to the output device.

The way in which InfoPrint Manager for AIX communicates with the output device depends on the type of actual destination. For PSF DSS actual destinations, it also depends on the attachment type.

InfoPrint 2000 DSS

InfoPrint Manager for AIX uses the InfoPrint 2000 DSS to communicate with TCP/IP-attached InfoPrint 2000 printer devices that do not use the AFCCU™ Channel Driver. Before creating the actual destination, you must determine the Internet Protocol (IP) address of the printer device.

IPP DSS

InfoPrint Manager for AIX uses the IPP DSS to communicate with destinations through the Internet Print Protocol (IPP). This DSS allows InfoPrint Manager for AIX to access a printer using a Uniform Resource Locator (URL) string.

Email DSS

InfoPrint Manager for AIX uses the email DSS to communicate with electronic mailing systems.

Generalized Fax DSS

InfoPrint Manager for AIX uses the generalized fax DSS to work with fax solutions that provide a command line interface. For more information about the use of the Generalized Fax DSS with InfoPrint Manager for AIX, see *InfoPrint Manager for AIX: Using Generalized Fax*.

SAPconnect DSS

InfoPrint Manager for AIX uses the SAPconnect DSS to deliver jobs, such as fax-in jobs, to an SAP System.

InfoPrint Manager for Windows supports these DSSs:

BSD DSS

The BSD DSS permits InfoPrint Manager for Windows to bridge to remote printers or printing subsystems. InfoPrint Manager for Windows sends jobs submitted to BSD physical printers as separate print requests to a remote print queue.

InfoPrint Manager for Windows typically uses the **lpr** command to send jobs to a printer device or to another system. This can be any device or system that supports the **lpd** protocol and that connects to the network

using TCP/IP. See the printer configuration documentation of the remote device or system for details on how to set up a remote queue.

PSF DSS

The PSF DSS permits InfoPrint Manager for Windows to bridge to the IBM Print Services Facility printing subsystem. This DSS allows communication with output devices that have Intelligent Printer Data Stream (IPDS) functions or that have PCL functions. The PSF DSS is the most flexible DSS. It provides a single point of control and tracking for print jobs. InfoPrint Manager for Windows transforms jobs submitted to PSF destinations to the IPDS or PCL data stream before sending them to the output device.

The way in which InfoPrint Manager for Windows communicates with the output device depends on the type of actual destination. For PSF DSS actual destinations, it also depends on the attachment type. (See “Understanding attachment types for PSF actual destinations.”)

Passthrough DSS

The Passthrough DSS permits InfoPrint Manager for Windows to bridge to the Windows print-spooling subsystem. This DSS supports mono-IPDS (PostScript or PCL) printers by using standard Windows ports and port monitors.

You must attach this type of printer device as specified by its documentation before creating its associated InfoPrint Manager for Windows destination.

IPP DSS

InfoPrint Manager for Windows uses the IPP DSS to communicate with destinations through the Internet Print Protocol (IPP). This DSS allows InfoPrint Manager for Windows to access a printer using a Uniform Resource Locator (URL) string.

Understanding attachment types for PSF actual destinations

The attachment type for an actual destination defines how the printer device attaches to the server and communications with InfoPrint Manager. Based on the printer device, the attachment type is one of:

- **TCP/IP.** The printer device communicates using the Intelligent Printer Data Stream (IPDS) and attaches to the server through the TCP/IP network. To create the actual destination, you must specify the Internet Protocol (IP) address of the printer device and the port number through which InfoPrint Manager communicates with the device. The port number for TCP/IP-attached printers is an integer from 5001 to 65535.
- **Other-driver.** The PCL, PostScript, or PPDS printer device communicates using TCP/IP or attaches directly to the server through a parallel/serial port (or through a hardware alternative to such direct attachment). When you want to create the actual destination with InfoPrint Manager for Windows, you must specify the port associated with a port monitor needed to operate the printer.
- **Command.** You must attach this type of printer as specified by its documentation and configure it in AIX before creating its associated actual destination for InfoPrint Manager for AIX **or** configure it to function as a Windows printer (using the standard Windows **Add Printer Wizard**) before creating its associated actual destination for InfoPrint Manager for Windows.
- **Upload-TCP/IP.** With InfoPrint Manager for AIX, the printer device is attached to a host system. InfoPrint Manager communicates with PSF for OS/390® or PSF

for MVS through the TCP/IP network. Before creating the actual destination, you must determine the Internet Protocol (IP) address of the host and the port number through which InfoPrint Manager communicates with the upload service. The port number for TCP/IP-attached printers is an integer from 5001 to 65535. You must also determine the code pages used on both the AIX and host systems.

Attributes displayed in the InfoPrint Manager Administration GUI

Attributes that include **GUI Label** are shown in the corresponding properties notebooks in the InfoPrint Manager Administration GUI. These objects have properties notebooks:

- Actual Destination
- Documents and Default Documents
- Jobs and Default Jobs
- Logical Destinations
- Servers
- Transforms

Introducing object attributes

All InfoPrint objects have associated attributes. Attributes provide information about the objects and determine what you can do with objects.

Attribute Disclaimer

There are attributes and attribute values identified in the ISO 10175-1 *Information Technology Text and Office Systems - Document Printing Application (DPA) - Part 1: Abstract-Service Definition and Procedures* standard that InfoPrint does not support. If you use any of these non-supported attributes or values, InfoPrint might accept them. However, the results can be different than you expect. At times you might receive a message stating that InfoPrint does not support the attribute or value.

Initially settable, resettable attributes, and non-settable

InfoPrint attributes fall into three categories:

Initially settable

For some attributes, you can set a value when you create the object with the **pdcreate** or the **pdpr** command. You cannot change these attributes afterwards.

For example, this command:

```
pdpr -x "job-originator='Anne Brown'" -d Sev1-1d bigbook
```

creates a job containing a file called bigbook and identifies the person who submitted the job by name. The attribute **job-originator** is *initially settable* and you cannot change it.

Resettable

For some attributes, you can set or modify the value using the **pdmod** command (for jobs and documents) or the **pdset** command (for all objects, including jobs and documents), after you create the object.

For example, this command:

```
pdmod -x "job-end-message='Please call 5-9999 for pickup'" 37
```

sets a new value for the **job-end-message** attribute for the existing job whose local ID is 37.

Non-settable

You cannot set a value for some attributes at any time.

For example, in this command:

```
pdcreate -c queue Serv1:Queue3
```

InfoPrint uses the command arguments to assign the queue attribute **queue-name** the value Queue3, and the **associated-server** attribute the value Serv1. You cannot set different values for these arguments using the **-x** flag of the **pdcreate** command and you cannot change them later.

Resetting attributes to the default value

This chapter shows default values for all attributes. For some attributes, the default value is “no value”.

- When you create an object, InfoPrint assigns a default value (or values, for some multi-valued attributes) to each attribute. You can override these default values by specifying a different value using the **-x** and **-X** flags of the **pdmod** or **pdset** commands.
- You can change values back to their default values by using the **pdmod** or **pdset** commands and specifying the attribute name followed by two equals signs, **==**, without any attribute value.

For example, this command:

```
pdset -x "printer-end-sheet==" Serv3-pp
```

sets the value assigned to **printer-end-sheet** for the actual destination Serv3-pp back to its default value.

- Deleting all the values from a multi-valued attribute or deleting the value of a single-valued attribute sets the attribute value to the default values.
- Setting a job or document attribute to the default results in the attribute getting set to the value of the default job's default attribute or the default document's default attribute.

Attribute syntax

This section describes the syntax to use when you set values for three types of attributes on the command line or in an attributes file. Most attributes are either **single-valued** (they can have only one value at a time) or **multi-valued** (they can have multiple values). InfoPrint also has some **complex attributes**.

Examples of these types of attributes follow.

Single-valued attributes:

For single-valued attributes, the syntax is:

```
"attribute=value"  
"attribute='value with spaces'"
```

Enclose the value in single quotation marks if it includes spaces, for example:

```
-x "message='Down for maintenance until 7AM'"
```

Note: The InfoPrint Manager Administration GUI does not require quotation marks.

Multi-valued attributes:

For multi-valued attributes, the syntax is:

```
"attribute=value1 value2 value3"
```

where *value1 value2 value3* are multiple values of the attribute. Separate the values with spaces and enclose the attribute name and values in double quotation marks. For example:

```
-x "content-orientations-supported=portrait landscape"
```

assigns two values, **portrait** and **landscape**, to the **content-orientations-supported** attribute.

Note: In the InfoPrint Manager Administration GUI, most multi-valued attributes require you to specify each value on a separate line of a list box. When you must enter multiple values in a single field, separate the values by commas. For example, enter multiple values for the **chars** attribute like this:

Fonts

Use of the * (asterisk) wildcard character:

Some of the **xxx-ready** and **xxx-supported** actual destination attributes with which you can specify general text strings as values allow the use of the * (asterisk) wildcard character. When the * (asterisk) wildcard character is specified, **any** value of the **xxx** attribute is accepted in the validation and scheduling of a job. For example, if you specify **job-batches-ready=*** for an actual destination, a job with any value specified in the **job-batch** attribute is accepted and possibly scheduled for that actual destination.

These **xxx-ready** and **xxx-supported** actual destination attributes allow the use of the * (asterisk) wildcard character:

- **classes-ready**
- **forms-ready**
- **job-batches-ready**
- **media-ready**
- **end-sheets-supported**
- **input-trays-supported**
- **media-supported**
- **output-bins-supported**
- **separator-sheets-supported**
- **start-sheets-supported**

Complex attributes:

Complex attributes can have multiple values, but each value itself has multiple components. Each component of a value has its own values. Two types of complex attributes are those that require braces, { }, enclosing each value, and those that have the components of each value separated by a colon, : .

Note: In the InfoPrint Manager Administration GUI, you enter each component in a separate field. No braces or colons are required.

Complex attributes that require braces:

The only complex attribute that requires braces is **notification-profile**

- Each value for this complex attribute begins and ends with braces, { } .
- Each value has several components
- Each component has a name and associated values
- The sequence in which you enter the components is not important
- The component **event-identifiers** is the only component that can have multiple values

An example of creating a **notification profile** with one value for a queue follows:

```
pdset -c queue
-x "notification-profile={event-identifiers=job-modified
queue-state-changed delivery-method=message
event-comment='This is a job modification or status event'
delivery-address=dave@cowboy locale=En_US.IBM-850}" Queue1
```

If you change one component in the notification profile, InfoPrint sets all the rest of the components of that value to their default values. For example, this command sets the **delivery-address**, but InfoPrint sets the other components to their defaults:

```
pdset -c queue
-x "notification-profile={delivery-address=tom@hope}" Queue1
```

To maintain the existing values, you must specify them. You cannot use the add, +=, or delete, -=, operators of the **pdset** or **pdmod** commands when changing the component values in a **notification-profile** value. However, you can add or delete all components of a value from the **notification-profile** by using the add, += , or delete, -= , operators. For example, this command:

```
pdset -c queue
-x "notification-profile+={delivery-address=mary@cowboy} Queue1
```

adds another value to the previous one. Now the **notification-profile** has two values.

```
notification-profile=
{event-identifiers=job-modified queue-state-changed delivery-method=message
event-comment='This is a job modification or status event'
delivery-address=dave@cowboy locale=En_US.IBM-850}

{event-identifiers=object-deleted object-cleaned queue-backlogged
delivery-method=message delivery-address=mary@cowboy
locale=En_US.IBM-850}
```

The second value contains default values for each component except the delivery address. If you want values other than defaults, you must specify them.

Complex attributes that require colons:

All other complex attributes require colons between components.

- Do not enter the component name.
- Separate the values for the components with a colon, :, and no spaces
- Enter a colon even if you do not enter a value for a given component. InfoPrint sets the default value or no value for that component.

- If you use the default value for the last value, InfoPrint does not require the colon for that component.
- Separate each attribute value in a multi-valued attribute with spaces (see the example)

An example of setting the **notify-operator** attribute for a queue is:

```
pdset -c queue -x "notify-operator=
  message:White@Caddy.xyz.com email:Jones@Chevy.xyz.com"
Queue2
```

Examples of setting the **results-profile** attribute for a job are:

```
pdset -c job -x "results-profile='dave@cowboy:pickup:2:Please staple'" 2
```

```
pdset -c job -x "results-profile='dave@cowboy::2:Please staple'" 2
```

The result of these two commands is the same because the default for the second component is **pickup**.

Using Windows Shell commands

When you use InfoPrint Manager with Windows Shell commands, you need to be aware that the Windows Shell commands interpret certain characters differently. For example, when you need to specify two double quotation marks, you might need to use a back slash to tell the Shell to recognize the double quotation mark as a double quotation mark and not as a command (\"). In a command file, similarly, you might need to specify two percent signs (%%) to tell the Shell to recognize one of the percent signs as a percent sign and not as a command file variable. For more information about the use of Shell commands, consult documentation on Windows Shell Commands.

Attributes for actual destinations

- InfoPrint uses actual destinations for job validation and scheduling. See Appendix C, "Job validation and scheduling," on page 1039 for an explanation of job validation and scheduling and for tables showing the attributes used for these tasks.
- InfoPrint uses the actual destination **xxx-supported** attributes for job validation. InfoPrint uses both the **xxx-ready** and the **xxx-supported** attributes for job scheduling.
- InfoPrint issues an error if you update an **xxx-ready** attribute with a value not currently assigned to the corresponding **xxx-supported** attribute.
- Actual destinations have different attribute sets based on the DSS that supports the destination.
- Device-specific actual destination attributes provide information that comes from the physical printer.

Note: The device-specific attributes are not returned when you ask for all the actual destination's attributes. You have to request the device-specific attributes individually or you can use **-r all-device** to query all the device-specific attributes. The **device-contact** and **device-location** device-specific attributes can only be modified with the **pdset** command or the Device Management GUI (DMG).

- InfoPrint supplies some files containing attributes that have the values for some of the actual destination attributes already set, based on the output device model or destination attachment type. You will find these files containing attributes in

the `/usr/lpp/pd/attr` directory for InfoPrint Manager for AIX and in the `install_path\attr` directory for InfoPrint Manager for Windows.

Attributes not displayed in the InfoPrint Manager Administration GUI

While all actual destination attributes and attribute values are supported for both the standard and basic InfoPrint installations, neither InfoPrint Manager Administration GUI displays a complete set.

- The standard InfoPrint Manager Administration GUI displays most attributes and attribute values of greatest interest to Data Center (Production Printing) InfoPrint administrators, but omits a few that are used primarily in basic InfoPrint installations.
- The basic InfoPrint Manager Administration GUI displays only the attributes of greatest interest to Print on Demand (Commercial Printing) InfoPrint administrators.

You can list the values of attributes not displayed in the InfoPrint Manager Administration GUI using the `pdls` command. You can set the values of initially settable and resettable attributes using the `pdcreate` command. You can change the values of resettable attributes using the `pdset` command.

Initially settable attribute listing

You can set these attributes with the `pdcreate` command when you create an actual destination.

- `attachment-type`
- `destination-data-stream`
- `destination-realization`
- `destination-support-system`
- `device-name`
- `print-queue-name`

Resettable attribute listing

You can set these attributes with the `pdcreate` command when you create an actual destination or modify them with the `pdset` command after you create the actual destination.

- `accept-jobs`
- `accounting-exit`
- `ack-interval`
- `add-carriage-returns`
- `add-line-feeds`
- `ascii-character-mapping`
- `ascii-font-map`
- `associated-queue`
- `attribute-map`
- `audit-exit`
- `automatic-postscript-mode-switch`
- `auxiliary-sheet-selections-supported`

- backup-destinations
- booklet-fold
- capture-inline-cmr-resources
- capture-inline-otf-resources
- carriage-control-types-supported
- character-mappings-supported
- checkpoint-at-stacker
- classes-ready
- client-driver-names
- color-bits-per-plane
- color-bits-per-plane-supported
- color-mapping-table
- color-profile
- color-profiles-supported
- color-rendering-intent
- color-toner-saver
- color-toner-saver-supported
- connection-timeout
- content-orientations-supported
- convert-to-ebcdic-supported
- data-fidelity-problem-reported-supported
- default-font-fidelity-action
- default-font-resolution
- default-input-tray
- descriptor
- destination-command
- destination-locations
- destination-model
- destination-pass-through
- destination-poll-interval
- destination-register-threshold
- destination-release-timer
- destination-tcpip-internet-address
- destination-tcpip-port-number
- destination-timeout-period
- document-finishings-supported
- document-formats-ripped-at-destination
- document-formats-supported
- document-types-supported
- dss-job-message-disposition
- dss-job-message-log-size
- dss-job-message-log-wrap
- ebcdic-character-mapping
- end-message-supported
- end-sheets-supported

- file-size-range-supported
- font-resolutions-supported
- force-destination-setup
- force-micr-font-print
- form-definition
- form-length-range-supported
- forms-ready
- halftones-supported
- image-fit-supported
- image-length
- image-out-formats-supported
- image-width
- input-data-user-exit
- input-trays-medium
- input-trays-supported (BSD only; otherwise non-settable)
- interrupt-message-page-enabled
- interrupt-message-page-form-definition
- interrupt-message-page-edge-marks
- intervention-timer
- job-batches-ready
- job-finishings-supported
- job-retry-count-limit
- job-retry-interval
- job-rip-actions-supported
- job-size-range-ready
- job-size-range-supported
- job-start-wait-supported
- jog-between-jobs
- large-file-enabled
- list-of-managers
- log-accounting-data
- logical-destinations-assigned
- maximum-concurrent-jobs
- maximum-copies-supported
- maximum-fonts-to-keep
- maximum-overlays-to-keep
- maximum-presentation-object-containers-to-keep
- maximum-segments-to-keep
- media-ready (BSD only; otherwise non-settable)
- media-supported
- message
- message-font-type
- message-form-definition
- mid-release-timer
- mid-support-enabled

- non-process-runout-timer
- notification-profile
- notify-operator
- number-up-supported
- offset-stacking-available
- optimize-for-multiple-copies
- output-appearances-supported
- output-bin
- output-bin-numbers
- output-bins-supported
- output-color-management-resource
- output-data-user-exit
- output-format-supported
- overlay
- page-select-supported
- pcl-server-address
- pcl-server-port
- plex
- plexes-supported
- postscript-server-address
- postscript-server-port
- presentation-fidelity-problem-reported
- presentation-object-container-extraction-mode
- print-edge-marks
- print-qualities-supported
- printer-end-sheet
- printer-escape-codes
- printer-memory
- printer-resolutions-ready
- printer-resolutions-supported
- printer-select-jdl
- printer-separator-sheet
- printer-start-jde-jdl
- printer-start-sheet
- psf-tray-characteristics
- public-context-presentation-object-container
- remote-queue
- resource-context
- resource-context-font
- resource-context-form-definition
- resource-context-overlay
- resource-context-page-definition
- resource-context-page-segment
- resource-context-presentation-object-container
- reuse-inline-presentation-object-container

- reverse-page-order
- rip-ini-file
- sap-gateway-host
- sap-gateway-service
- sap-logon-client
- sap-logon-password
- sap-logon-userid
- sap-program-id
- sap-system-hostname
- sap-system-name
- sap-system-number
- scanner-corrections-supported
- scheduler-sort-primary-order
- scheduler-sort-secondary-order
- screen-frequencies-supported
- separator-sheets-supported
- shared-printer-name
- sides
- sides-supported
- snmp-community-name
- snmp-retry-count
- snmp-timeout
- snmp-write-community-name
- start-message-supported
- start-sheets-supported
- table-reference-characters-supported
- transform-sequence
- use-snmp
- wait-for-job-completion
- wait-for-job-completion-snmp-timeout
- x-image-shift-range-supported
- y-image-shift-range-supported

accept-jobs

Indicates whether InfoPrint can assign newly submitted or resubmitted jobs to this actual destination.

GUI label

Accept jobs

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- A value of **false** does not prevent you from using the basic InfoPrint Manager Administration GUI to reassign jobs that have been assigned to another actual destination to this actual destination.
- When this value is **false** and the queue attribute **assign-to-destination** is true, InfoPrint rejects jobs sent to this actual destination.
- InfoPrint can assign jobs to this actual destination even if it is disabled. Of course, the jobs will not be printed or sent until the destination is enabled.
- The **accept-unsupported-jobs** server attribute overrides the **accept-jobs** attributes.

accounting-exit

Specifies the name of an auxiliary-sheet object that sets accounting exit parameters.

GUI label

Accounting exit

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter the name of any auxiliary sheet object. The supplied auxiliary sheet objects include:

accounting-log

Accounting information is written to the:

- `/var/psf/accounting.log` file for AIX

- *install_path*\var\psf\accounting.log file for Windows, where *install_path* indicates the path where you installed InfoPrint Manager for Windows.

brief A sheet with brief accounting information is printed after the job.

full A sheet with full accounting information is printed after the job.

job-ticket

Accounting information is written to:

- /var/psf/podaccounting.log file for AIX
- *install_path*\var\psf\podaccounting.log file for Windows, where *install_path* is the path where you installed InfoPrint Manager for Windows.

none No accounting information is produced.

Default Value

- For InfoPrint Manager: Print-on-Demand feature:

**Standard InfoPrint Manager Administration GUI and command line
accounting-log**

**Basic InfoPrint Manager Administration GUI
job-ticket**

- For InfoPrint Manager for Windows: **accounting-log**
- For PSF printers created with the Basic InfoPrint Manager Administration GUI: **accounting-log**

ack-interval

Determines how often InfoPrint sends acknowledgement requests to the destination.

GUI label

Acknowledgement interval (pages)

DSS

PSF, Generalized Fax, Email

Type

Resettable, single-valued

Allowed Values

You can enter a value of 1 through 9999. This value represents pages.

Default Value

100

Usage Guidelines

The unit for this attribute is pages. If you change this attribute value, the change can affect performance. You can control how often InfoPrint updates the job attribute **pages-completed** by decreasing or increasing this value:

- Decreasing the value (number of pages) increases the number of acknowledgement requests during normal printing activities. This decreases the destination throughput and reduces the complexity of the exception recovery activities that InfoPrint performs.
- Increasing the value (number of pages) decreases the number of acknowledgement requests. This provides less accurate information about the destination and exception conditions.

Note: This attribute is only used for IPDS printers.

add-carriage-returns

Indicates whether InfoPrint should add carriage return characters when transforming ASCII documents for printing on this actual destination.

GUI label

Add ASCII carriage returns

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value

add-line-feeds

Indicates whether InfoPrint should add line feed characters when transforming ASCII documents for printing on this actual destination.

GUI label

Add ASCII line feeds

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value

ascii-character-map

Indicates the ASCII code page that AIX uses to map the attributes of this PSF upload-TCP/IP-attached destination.

GUI label

ASCII code page to use

DSS

PSF (AIX Only)

Type

Resettable, single-valued

Allowed Values

You can enter the name of an ASCII code page, such as ISO8859-1.

Default Value

No default value

Usage Guidelines

- InfoPrint uses this attribute for PSF upload-TCP/IP-attached actual destinations and ignores it for other attachment types.
- If no value is specified for **ascii-character-map**, PSF upload uses the default code page of the server.

ascii-font-map

Defines how the destination maps the ASCII font escape sequences to AFP character sets that InfoPrint uses for ASCII fonts. InfoPrint uses this attribute to map each font-change escape to an AFP font character set.

GUI label

ASCII fonts mappings

DSS

PSF

Type

Resettable, multi-valued, complex

Syntax

font-escape:font-name

Separate each pair of values with a colon, for example:

10cpi:C02055D0

Components

- **font-escape**
Specifies the name of an ASCII font-escape sequence.
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a text string containing the sequence name.
- **font-name**
Specifies the name of an AFP font character set.
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a text string containing the font character set name.

Default Values

<i>font-escape Value</i>	<i>font-name Value</i>
10cpi	C02055D0
10cpi-emphasized	C02075D0
10cpi-subscript	C02055P0
10cpi-subscript-emphasized	C02075P0
10cpi-2wide	C02059A0
10cpi-2wide-emphasized	C02079A0
10cpi-2wide-2high	C02059L0
10cpi-2wide-2high-emphasized	C02079L0
10cpi-2wide-subscript	C02055J0
10cpi-2wide-subscript-emphasized	C02075J0

<i>font-escape Value</i>	<i>font-name Value</i>
10cpi-2high	C02051K0
10cpi-2high-emphasized	C02071K0
10cpi-condensed	C02055F0
10cpi-condensed-subscript	C02051R0
10cpi-condensed-2wide	C02059C0
10cpi-condensed-2wide-subscript	C02056N0
12cpi	C02055E0
12cpi-emphasized	C02075E0
12cpi-subscript	C02054Q0
12cpi-subscript-emphasized	C02074Q0
12cpi-2wide	C02059B0
12cpi-2wide-emphasized	C02079B0
12cpi-2wide-subscript	C02058M0
12cpi-2wide-subscript-emphasized	C02078M0
proportional	C02055G0
proportional-emphasized	C02075G0
proportional-subscript	C02055S0
proportional-subscript-emphasized	C02075S0
proportional-2wide	C02059G0
proportional-2wide-emphasized	C02079G0
proportional-2wide-2high	C02057S0
proportional-2wide-2high-emphasized	C02077S0
proportional-2wide-subscript	C02051H0
proportional-2wide-subscript-emphasized	C02071H0
proportional-2high	C02055H0
proportional-2high-emphasized	C02075H0

associated-queue

Identifies the queue from which this actual destination receives jobs.

GUI label

Queue fed by

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains the ID of the queue. The ID cannot contain the cell name.

Default Value

No default value

Usage Guidelines

The value for this attribute is the name of a queue. The associated queue must exist and be in communication with the destination before you can enable the actual destination.

associated-server

Identifies the name of the server in which this actual destination is located in.

GUI label

Server

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the value of the *ServerName* portion of the argument from the `pdcreate` command used to create this actual destination.

Default Value

No default value

attachment-type

Identifies how the output device that this actual destination represents attaches to the DSS and how InfoPrint communicates with the output device.

DSS

PSF, Metacode

Type

Initially settable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
command	InfoPrint communicates with this printer device by forwarding print requests to the remote print system or printer with a command. You might need to create a queue on the remote print system.
other-driver	InfoPrint communicates directly with the printer device through an AIX printer backend program or a Windows printer port.

<i>Fixed Value</i>	<i>Explanation</i>
tcpip	InfoPrint communicates with this TCP/IP LAN-attached printer device directly through the TCP/IP network. Note: The Metacode DSS only supports the tcpip value.
upload-tcpip	This printer device is attached to an MVS system. InfoPrint communicates with PSF/MVS through the TCP/IP network. Note: This value is only supported by the PSF DSS for AIX.

Default Value

No default value

Usage Guidelines

- You need to specify a value for this attribute when you create a PSF actual destination.
- Some actual destination attributes apply only to certain attachment types.

attribute-map

Provides a list of InfoPrint attributes and their associated generated command flags.

GUI label

Map attributes to flags

DSS

BSD, Generalized Fax

Type

Resettable, multi-valued, complex

Syntax

attribute:flag

Separate each pair of values with a colon, for example:

destination-pass-through:-o

Components

- **attribute**

The name of an InfoPrint document or job attribute that corresponds to a flag of the generated command.

- *GUI label*

InfoPrint attribute

- *Type*

Single-valued

- *Allowed Values*

You can enter a text string containing an attribute name.

- **flag**
The name of a flag of the generated command.
 - *GUI label*
Output command option
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a text string containing a flag.

Default Values

For BSD

destination-pass-through:-o

For Generalized Fax

No default value

Usage Guidelines

- With AIX by default, BSD assumes the generated command is a **rembak** command.
- With Windows by default, BSD assumes the generated command is an **lpr** command.
- Some printer devices, for example, the 4317 Network Printer 17, InfoPrint 20 Printer, and InfoPrint 32 Printer, do not support the BSD **-Z** flag. If you receive this error message when you try to print on one of these printers:
0782-597 The value of -Z attribute is not in the ring list
specified in the limits field

delete the **job-name:-o-Z** value from the **attribute-map** attribute.
- When you are creating a Generalized Fax actual destination, you must specify **attribute-map**.

audit-exit

Specifies the name of the auxiliary-sheet object that sets audit exit parameters.

GUI label

Audit exit

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter the name of an auxiliary sheet object. The supplied auxiliary sheet objects include:

accounting-log

Audit information is written to the:

- `/var/psf/audit.log` file for AIX
- `install_path\var\psf\audit.log` file for Windows, where *install_path* indicates the path where you installed InfoPrint Manager for Windows.

brief A sheet with brief audit information is printed after the job.

full A sheet with full audit information is printed after the job.

job-ticket

A sheet with full audit information from the job ticket is printed after the job.

none No audit information is produced.

Default Value

No default value

Usage Guidelines

If you do not set a value, InfoPrint produces no audit information at the end of a job submitted to this actual destination.

automatic-postscript-mode-switch

Indicates whether this actual destination supports switching into PostScript mode using controls placed in the data stream.

GUI label

Switch to PostScript automatically

DSS

AIX

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- If this actual destination has this feature, it can print PostScript documents among non-PostScript documents.
- The value for this attribute does not change if you delete the **document-formats-supported** value of **postscript**.

auxiliary-sheet-selections-supported

Identifies the combination of start, separator, and end sheets selection that this actual destination supports for jobs.

GUI label

Auxiliary sheets allowed

DSS

AIX, PSF, InfoPrint 2000, IPP, Metacode, Passthrough

Type

Resettable, multi-valued

Allowed Values

For AIX, PSF, Metacode, and InfoPrint 2000, you can enter any of these fixed values:

- **end**
- **none**
- **sep**
- **sep-end**
- **start**
- **start-end**
- **start-sep**
- **start-sep-end**

For IPP and Passthrough, you can enter any of these fixed values:

- **none**
- **start**

Default Values

AIX, PSF, and InfoPrint 2000 defaults: **end**, **none**, **sep**, **sep-end**, **start**, **start-end**, **start-sep**, **start-sep-end**.

Internet Printing Protocol (IPP) and Passthrough defaults: **none**, **start**.

Usage Guidelines

- InfoPrint compares the job attribute **auxiliary-sheet-selection** to this attribute for validation and scheduling.
- You can use this attribute to restrict how much control users have over **auxiliary-sheet-selection** on this actual destination.

- If you remove all values that specify a particular auxiliary sheet (such as **start**), the job submitter cannot “turn off” the corresponding actual destination attribute (such as **printer-start-sheet**).

backup-destinations

Identifies other actual destinations that end users can use if this actual destination is unavailable. The administrator can use this attribute to identify one or more backup destinations for an actual destination, so that when an actual destination is unavailable, the end user can use this information to locate an alternative destination to submit a job to. This is an information-only attribute.

GUI label

Backup destinations

DSS

All

Type

Resettable, multi-valued

Input Synonyms

You can use the synonym **backup-printers**.

Allowed Values

You can enter a text string of up to 255 characters that contains the names of actual destinations that can be backup destinations.

Default Value

None.

booklet-fold

Specifies how booklets are ordered and folded on this output device.

GUI label

Fold booklet

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

- **up**
- **down**

Default Value

down For PSF InfoPrint 4000 printers and for InfoPrint 2000 printers

up For all other printers

Usage Guidelines

- The InfoPrint 60 Finisher folds booklets **up**; that is, the cover (if any) is inserted at the beginning of the booklet, and after the booklet prints, the cover is saddle-stitched from the bottom and folded upward.
- The InfoPrint 2000 and inline booklet makers attached to the InfoPrint 4000s fold booklets **down**; that is, the cover (if any) is inserted at the end of the booklet, and after the booklet prints, it is saddle-stitched from the top and folded downward.
- The **reverse-page-order** attribute does not apply to booklet jobs.

cancel-individual-document-supported

Indicates whether this actual destination is capable of cancelling a single document in a multi-document job.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **false**.

Default Value

false

capture-inline-cmr-resources

Indicates whether inline color management resources (CMRs) can be downloaded by InfoPrint Manager, and optionally captured and used by PSF TCP/IP printers. Capturing a CMR means the resource is downloaded to the printer and remains resident on the printer for future reuse.

GUI label

Capture inline CMR resources

DSS

PSF TCP/IP

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When this attribute is set to **true** and an inline CMR has an object identifier (OID), and if the CMR is not already captured (that is, made resident) in the printer, InfoPrint Manager downloads the CMR and tells the printer to capture it.
- When this attribute is set to **false** (the default) and an inline CMR has an object identifier (OID), InfoPrint Manager tries to activate the CMR in the printer. If the CMR is not in the printer, InfoPrint Manager downloads the CMR, but does not tell the printer to capture it.
- When an inline CMR resource does not have an object identifier (OID), InfoPrint Manager can download the CMR, but the printer cannot capture the CMR.

Note: A printer must support CMR capture to take advantage of **capture-inline-cmr-resources**.

For more information about the use of CMRs with InfoPrint Manager, please see the appropriate InfoPrint Manager procedures manual.

capture-inline-otf-resources

Indicates whether inline OpenType Fonts can be downloaded by InfoPrint Manager and captured and used by PSF TCP/IP printers. Capturing a font means it is downloaded to the printer and remains resident on the printer for future reuse.

GUI label

Capture inline otf resources

DSS

PSF TCP/IP

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When this attribute is set to **true** and an inline OpenType font has an object identifier (OID), and if the font is not already captured (that is, made resident) in the printer, InfoPrint Manager downloads the font and tells the printer to capture it.
- When this attribute is set to **false** (the default) and an inline OpenType font has an object identifier (OID), InfoPrint Manager tries to activate the font in the printer. If the font is not in the printer, InfoPrint Manager downloads the font, but does not tell the printer to capture it.
- When an inline OpenType font does not have an object identifier (OID), InfoPrint Manager can download the font, but it cannot be captured by the printer.

Note: A printer must support OpenType font capture to take advantage of **capture-inline-off-resources**.

For more information about the use of OpenType and WorldType fonts with InfoPrint Manager, see “Using OpenType fonts” in the appropriate InfoPrint Manager procedures manual.

carriage-control-types-supported

Identifies the types of carriage controls that this actual destination supports.

GUI label

Carriage control types allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **ansi-ascii**
- **ansi-ebcdic**
- **machine**
- **none**

Default Values

ansi-ascii, ansi-ebcdic, machine, none

Usage Guidelines

- InfoPrint compares the document attribute **carriage-control-type** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

character-mappings-supported

Identifies the character mappings (code pages) that this actual destination supports.

GUI label

Character mappings allowed

DSS

AIX, PSE, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **ibm-437**
- **ibm-850**
- **ibm-860**
- **ibm-863**
- **ibm-865**
- **ibm-932**
- **ibm-938** with InfoPrint Manager for AIX only
- **ibm-euccn**
- **ibm-eucjp**
- **ibm-euckr**
- **ibm-euctw**

Default Values

AIX The value of the **destination-model** attribute for the actual destination determines the default value.

PSF, Email, Generalized Fax, InfoPrint 2000

ibm-437, ibm-850, ibm-860, ibm-863, ibm-865, ibm-eucjp, ibm-euckr, ibm-euctw

Usage Guidelines

InfoPrint compares the document attribute **default-character-mapping** to this attribute for scheduling.

checkpoint-at-stacker

Indicates where to pause jobs printing on this actual destination.

GUI label

Checkpoint at stacker

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

When this attribute is set to **false** (the default), the checkpoint for paused jobs occurs at the operator viewing point on the printer device (the printhead). This means that when a paused job resumes, printing begins where it stopped, without reprinting any pages.

Set this attribute to **yes** if you want the checkpoint to occur at the stacker. This means that when a paused job resumes, all pages not stacked will be reprinted. This guarantees that, even if there is a paper jam between the printhead and the stacker, you will have at least one copy of each printed page.

checkpoint-formats-supported

InfoPrint sets this attribute to identify the checkpoints supported for paused jobs for this actual destination.

GUI label

Checkpoint formats allowed

DSS

AIX, PSF, Email, Generalized Fax, InfoPrint 2000

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to any of these fixed values:

- **dsf-document-number**
- **dsf-job-copy**
- **dsf-results-profile**
- **no-context-info**
- **psf-interrupt**

Default Values

AIX **dsf-document-number, dsf-job-copy, dsf-results-profile**

PSF **dsf-results-profile, psf-interrupt**

Email, Generalized Fax, InfoPrint 2000
dsf-results-profile

Usage Guidelines

InfoPrint uses this information to reschedule paused jobs.

classes-ready

The **classes-ready** attribute is used with the **class** document/default document attribute for scheduling. A document with a class matching **classes-ready** will be scheduled to the appropriate actual destination.

GUI label

Classes ready (A-Z, 0-9, @, *)

DSS

All

Type

Resettable, multi-valued

Allowed Values

You can enter a text string.

Default Value

The default is an * (asterisk).

Usage Guidelines

- When this attribute contains an * (asterisk), any job will be scheduled to the associated actual destination.
- There is no associated supported attribute for **classes-ready**, so a job specifying any class value will be accepted, but it can remain in the queue until the appropriate **classes-ready** value is set.
- InfoPrint compares the **class** document attribute with the **classes-ready** actual destination attribute for validation and scheduling.

client-driver-names

Identifies the 32-bit Windows print drivers that can submit a data stream to this actual destination. Setting this attribute makes the actual destination usable from InfoPrint Manager Select.

GUI label

Client drivers

DSS

All

Type

Resettable, multi-valued

Allowed Values

You can enter a text string that contains the string form of the Windows print driver for each permitted Windows print driver. Begin and end the string with single quotation marks.

Default Value

No default value

Usage Guidelines

Perform this procedure to determine the valid client driver names:

1. Click **My Computer** from the desktop.
2. Click **Control Panel**.
3. Click **Printers**.
4. Click **Add Printer**.

5. The values listed in the **Printer:** list box in the **Add Printer Wizard** are the names of the Windows destination drivers that you can install on the workstation; for example, **4039 LaserPrinter PS**.

Notes:

1. Other destination drivers are available and might not display in the list for a particular workstation.
2. If you will be submitting jobs from the Windows Select client to a PSF actual destination, you should select a generic destination driver, such as a PostScript driver, instead of one for a specific type of destination. Otherwise, the driver might generate device-specific data streams that InfoPrint cannot transform correctly.

color-bits-per-plane

Specifies whether the transform is to produce monochrome (fs10) or color images (fs42 or fs45).

GUI label

Color bits per plane

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

- **0-bits** (monochrome FS10)
- **1-bit** (color FS42)
- **8-bits** (color FS45)

Default Value

For InfoPrint Color 130 Plus and InfoPrint 5000, the default is **8-bits**.

For all other actual destinations, the default is **0-bits**.

Usage Guidelines

- This attribute only applies to TCP/IP and Upload TCP/IP attachment types.

color-bits-per-plane-supported

Specifies the types of images supported on the actual destination when printing a document.

GUI label

Color bits per plane allowed

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter one of these fixed values:

- **0-bits** (monochrome FS10)
- **1-bit** (color FS42)
- **8-bits** (color FS45)

Default Value

For InfoPrint Color 130 Plus, these defaults apply:

- **0-bits** (monochrome FS10)
- **1-bit** (color FS42)
- **8-bits** (color FS45)

For InfoPrint 5000, the default is **8-bits** (color FS45).

For all other actual destinations, the default is **0-bits** (monochrome FS10).

Usage Guidelines

- This attribute only applies to TCP/IP and Upload TCP/IP attachment types.
- Black and white printers or black and white printers with spot-color attachments support **0-bits**.
- InfoPrint Color 100 AFP printers support **0-bits** and **1-bit**
- InfoPrint Color 130 Plus printers support **0-bits**, **1-bit**, and **8-bits**.
- InfoPrint 5000 supports **8-bits**.

color-mapping-table

Identifies the default color mapping table (CMT) that the output device uses when printing a document.

GUI label

Color mapping table

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 8 characters that contains the identification of the color mapping table.

Default Value

No default value

Usage Guidelines

- See “Generating and submitting color mapping table source and output files” in the *InfoPrint Manager: Procedures* manual that is appropriate for your operating system.
- See “Appendix A” in *InfoPrint Data Stream and Object Architectures: Mixed Object Document Content Architecture Reference* for more detailed information about the use of color mapping tables.

color-profile

Specifies the color profile, if any, to be used by the PostScript transform (**ps2afp**) and the PDF transform (**pdf2afp**).

GUI label

Color profile

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

SWOP

Specifications for Web Offset Publications (SWOP) standard in the United States used for tuning Cyan-Magenta-Yellow-Black (CMYK) color.

Euroscale

European standard used for tuning Cyan-Magenta-Yellow-Black (CMYK) color.

none No color profile.

Default Value

none

Usage Guidelines

- This attribute only applies to TCP/IP and Upload TCP/IP attachment types.

color-profiles-supported

Identifies which color profiles can be used by the actual destination when printing a document.

GUI label

Color profiles allowed

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter one of these fixed values:

SWOP

Specifications for Web Offset Publications (SWOP) standard in the United States used for tuning Cyan-Magenta-Yellow-Black (CMYK) color.

Euroscale

European standard used for tuning Cyan-Magenta-Yellow-Black (CMYK) color

none No color profile

Default Value

For InfoPrint Color 130 Plus, these defaults apply:

- **SWOP**
- **Euroscale**
- **none**

For all other actual destinations, the default is **none**.

Usage Guidelines

- This attribute only applies to TCP/IP and Upload TCP/IP attachment types.
- You can use this attribute to restrict the use of **color-profile**.

color-rendering-intent

Identifies which color rendering dictionary (CRD) can be used by the PostScript RIP and which lookup table (LUT) can be used by the TIFF RIP.

GUI label

Color rendering intent

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

Fixed Value	Explanation
relative	When you specify relative , InfoPrint Manager maps in-gamut colors exactly and maps out-of-gamut colors to the closest in-gamut color.
perceptual	When you specify perceptual , InfoPrint Manager maps all colors in such a way as to provide subjectively more pleasing hardcopy output.

Input Synonym

You can use the synonym **color-rendering-intent-colormetrics**.

Default Value

For InfoPrint Color 130 Plus, this default applies:

- **relative**

Usage Guidelines

- For the vast number of colors possible with 32-bit color, an actual destination can only physically render a subset of the possible range of colors, and this range is referred to as the color gamut for the actual destination. When a color is specified in PostScript or TIFF and is then transformed into AFP, the transform needs to map the colors that fall outside of the color gamut for the actual destination into a color in the gamut, so it can be printed with fidelity. The **color rendering intent** attribute specifies which Color Rendering Dictionary (CRD) to use for the PostScript mapping and which Lookup Table (LUT) to use for the TIFF mapping.
- For PostScript, the CRD depends on the value of the **color-toner-saver** attribute.
- For TIFF, the LUT depends on the value of the **color-profile** and **color-toner-saver** attributes.
- This attribute only applies to TCP/IP and Upload TCP/IP attachment types.
- The color PostScript RIP must be installed to make use of this attribute.
- If this attribute is specified and a pragma setting for the transform is specified through **other-transform-options**, the value in **other-transform-options** takes effect.
- If **color rendering intent** is specified inside the PostScript data stream, that value takes effect regardless of any attribute setting.
- Color rendering intent cannot be specified inside the TIFF/GIF/JPEG data stream.
- The **color-rendering-intent** attribute is not the same value as the *ColorRenderingIntent* in the form definition for color management resources (CMRs).

color-toner-saver

When cyan, magenta, and yellow (cmyk) are combined in a certain proportion, the result approximates black. When the **color-toner-saver** attribute is used, the proportion of cyan, magenta, and yellow are reduced and substituted with black toner, which reduces the amount of color toner used. This option only applies to non-cmyk PostScript (for example, RGB) for which a color rendering dictionary (CRD) is used to determine the cmyk values to use.

GUI label

Color toner saver

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

With the **color-toner-saver** attribute, a value of **true** or **yes** substitutes black for common cyan, magenta, and yellow components to reduce consumption of toner and to reduce the cost per page; while a value of **false** or **no** uses the cmyk proportions specified.

Default Value

false

Usage Guidelines

- This attribute only applies to TCP/IP and Upload TCP/IP attachment types.
- Setting **color-toner-saver** to **True** or **Yes** results in less vibrant process colors.
- The **color-toner-saver** actual destination attribute can be used with color management resources (CMRs).

color-toner-saver-supported

Identifies the values that can be specified for **color-toner-saver**. When cyan, magenta, and yellow (cmyk) are combined in a certain proportion, the result approximates black. When the **color-toner-saver** attribute is used, the proportion of cyan, magenta, and yellow are reduced and substituted with black toner, which reduces the amount of color toner used. This option only applies to non-cmyk PostScript (for example, RGB) for which a color rendering dictionary (CRD) is used to determine the cmyk values to use.

GUI label

Color toner saver allowed

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

- true or yes
- false or no

Usage Guidelines

- This attribute only applies to TCP/IP and Upload TCP/IP attachment types.
- You can use this attribute to restrict the use of **color-toner-saver**.

command

See **destination-command**.

connection-timeout

Sets the connection timeout parameter for TCP/IP-attached actual destinations. This time period is the amount of time that InfoPrint waits before it stops trying to communicate with the output device when it cannot make a connection.

GUI label

Connection time out (sec)

DSS

PSF, Email, Generalized Fax

Type

Resettable, single-valued

Allowed Values

You can enter a value of 0 through 9999. The unit is seconds.

Default Value

30

Usage Guidelines

- A value of **0** prevents any time out.
- InfoPrint uses this attribute with TCP/IP-attached actual destinations and ignores it for other attachment types.

content-orientations-supported

Identifies the page presentations that this actual destination supports.

GUI label

Orientations allowed

DSS

AIX

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **orientations-supported**.

Allowed Values

You can enter any of these fixed values:

- **landscape**
- **portrait**
- **reverse-landscape**
- **reverse-portrait**

Default Values

portrait

Usage Guidelines

- InfoPrint compares the document attribute **content-orientation** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

convert-to-ebcdic-supported

Indicates whether this actual destination supports converting document data from ASCII to EBCDIC.

GUI label

Convert to EBCDIC allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	Input Synonym
true	yes
false	no

Default Value

true

Usage Guidelines

- InfoPrint compares the value of the document attribute **convert-to-ebcdic** to this attribute for job validation and scheduling.
- InfoPrint uses the document attribute **convert-to-ebcdic** when printing line-data documents.
- You can use this attribute to restrict use of this actual destination.

data-fidelity-problem-reported-supported

Identifies which types of data fidelity errors this actual destination reports.

GUI label

Data fidelity problems allowed

DSS

PSF, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **all**
- **character**
- **none**

- position

Default Values

all, character, none, position

Usage Guidelines

- InfoPrint compares the document attribute **data-fidelity-problem-reported** to this attribute for scheduling.
- Use this attribute to specify whether InfoPrint issues error messages for print-positioning and invalid-character errors that occur for TCP/IP-attached and upload-TCP/IP-attached printer devices.

Print positioning errors occur when the print position for the data is beyond the valid printable areas as defined by the intersection of the physical and logical pages. (A logical page identifies the printing boundaries of a physical page.)

Invalid-character errors occur when the code point does not map to a character in a font.

default-font-fidelity-action

Indicates what InfoPrint should do if a font required to print a document is not available in the resolution specified by the data stream, the document **font-resolution** attribute, or the actual destination **default-font-resolution** attribute.

GUI label

Default font fidelity action

DSS

PSF, Email, Generalized Fax

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
stop	Stop printing the job.
continue	Try to substitute a similar font at a different resolution.

Default Value

continue

Usage Guidelines

The value of the document attribute **font-fidelity-action** and the value specified in the data stream override the value of this attribute.

default-font-resolution

Specifies the font resolution, in pels, used for documents printed on this actual destination when no value is specified in the data stream or by the document **font-resolution** attribute.

GUI label

Default font resolution

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

- 240
- 300
- **open-type**
- **outline**

Default Value

outline

Usage Guidelines

- The value of this attribute must be one of the values of the **font-resolutions-supported** attribute.
- Usually the font resolution and the printer resolution match, but there are two cases when they do not:
 - Some printer devices, for example, the InfoPrint 60 and InfoPrint 4000s, can print fonts of any resolution, although the print head is always 600 pels.
 - It is possible to print a document created with fonts of one resolution on a printer device with a different resolution by substituting fonts. Depending on the document, the output might or might not be acceptable.
- The **open-type** value is only valid for printers that support TrueType or OpenType fonts. For more information about TrueType or OpenType fonts, see *Using OpenType Fonts in an AFP System*.

default-input-tray

Specifies the name of the default input tray for a PSF actual destination.

GUI label

Default input tray

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter any value as long as the value maps to one of the actual destination **input-trays-supported** or **psf-tray-characteristics** attribute values.

Default Value

No default value

Usage Guidelines

- The value you specify must be one of the values specified for the **input-trays-supported** or **psf-tray-characteristics** actual destination attribute.
- InfoPrint only uses the value you supply for this attribute if:
 - The user does not specify a medium or input tray.
 - The form definition InfoPrint uses for the job does not specify an input tray.

descriptor

Provides a textual description of this actual destination.

GUI label

Description

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that describes this actual destination. You might want to include such things as the type and location of the output device that this actual destination represents and any usage information, such as restrictions for this actual destination.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description is useful to users who want to specify a given destination or to determine which destination

can handle their jobs. A description is also helpful when you create a new logical destination and want to determine which actual destinations you should associate with the new logical destination.

destination-command

Specifies the command-line entry to print the job data.

GUI label

Printer command

DSS

AIX, BSD, Generalized Fax, PSF

Type

Resettable, single-valued

Input Synonyms

You can use the synonym **printer-command** or **command**.

Allowed Values

You can enter a text string up to 4095 characters long that contains the command.

Default Value

AIX No default

BSD for InfoPrint Manager for AIX
`/usr/lpd/rembak`

BSD for InfoPrint Manager for Windows
No default

Generalized Fax
No default

PSF other-driver attached actual destinations for InfoPrint Manager for AIX only No default

PSF command-attached actual destinations for InfoPrint Manager for AIX
`qprt -Pxxx -dp -Z!`

where *xxx* is the value of the **print-queue-name** attribute. If there is no value for the **print-queue-name** attribute, *xxx* is

`asc` If the **destination-data-stream=ppds**

`pcl` If the **destination-data-stream=pcl4, pcl5, pcl5c, or pcl6**

PSF command-attached actual destinations for InfoPrint Manager for Windows
No default

Usage Guidelines

- For AIX actual destinations:

- InfoPrint uses the value as the command that the AIX actual destination executes for each document printed. It should include the full path name for the print driver you are using for your printer device.

With the addition of the **wait-for-job-completion** actual destination attribute, there is a new backend program called `pioinfo` that can be used in place of the `piojetd` backend program. For example, **destination-command=/usr/lpd/pio/etc/pioinfo *ip_address***, where *ip_address* is the ip address of the printer.

See “wait-for-job-completion” on page 673 for more information.

- If the printer backend program is a variation of, or front end to, **rembak**, specify **true** on the **remote-queue** actual destination attribute. Examples of **rembak**-based backend programs include **piorf1b** and **piocolor**.

For more information about **rembak**, see `iprrl_pptrq.dita#iprrl_pptrq`.

- For PSF actual destinations:
 - InfoPrint uses the value as the command string to print a job on the command-attached printer and to send the job to the correct remote queue.
 - With the PSF DSS for AIX:
 - InfoPrint uses the command string to invoke the printer backend program for other-driver attached actual destinations.
 - If you do not specify this attribute for command-attached actual destinations, InfoPrint fills in the value of XXX (shown under Default Value) with the value of the **print-queue-name** attribute.
 - With a PSF-other attached printer, **destination-command** is supported for an AIX server; however, it is not supported for a Windows server.
- For BSD actual destinations, you can use the **attribute-map** actual destination attribute to map InfoPrint attributes to command flags appropriate for your destination command. The **attribute-map** defaults apply to **rembak** (on AIX) and **lpr** (on Windows).
- When you are creating a Generalized Fax actual destination, you must specify **destination-command**.

destination-data-stream

Identifies the data stream format that is output to the printer device.

GUI label

Data Stream

DSS

PSF

Type

Initially settable, single-valued

Allowed Values

You can enter one of these fixed values:

- **pcl4**
- **pcl5**
- **pcl5c**

- **ppds**
- **ipds**

Note: **ipds** is not an allowed value for command-attached and other-driver attached printers.

- **afpds**

Note: **afpds** can only be used with the Upload TCP/IP attachment type.

For more information about attachment types, see “Understanding attachment types for PSF actual destinations” on page 473.

Input Synonym

You can use the synonym **printer-data-stream**.

Default Value

Other-driver attached actual destinations
pcl4

Command-attached actual destinations
pcl4

Other attachment types
ipds

destination-locations

Identifies the location of the output device.

GUI label

Locations

DSS

All

Type

Resettable, multi-valued

Input Synonyms

You can use the synonym **printer-locations** or **locations**.

Allowed Values

You can enter a text string up to 4095 characters long, for each value, that describes the physical location of the output device. Each value is a different description for the same location.

Default Values

No default value

Usage Guidelines

InfoPrint compares the job attribute **destination-locations-requested** to this attribute for scheduling. You can specify the **destination-locations-requested** job attribute to request that InfoPrint use the output device at this specific location to process the job.

destination-model

Identifies the make and model number defined by the manufacturer of the output device.

GUI label

Model

DSS

AIX, PSF, BSD, InfoPrint 2000, Email, Generalized Fax, Passthrough, IPP

Type

Non-settable with AIX and PSF other-driver attached actual destinations; resettable, single-valued with other listed DSSs

Input Synonyms

You can use the synonym **printer-model** or **model**.

Allowed Values

You can enter a text string up to 4095 characters long that contains the make and model number of the output device.

Default Value

If SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise no default value.

With Internet Printing Protocol (IPP) printers when SNMP communication is not active, the default comes from IPP.

Usage Guidelines

- If you specify a value for the **destination-model** attribute, you deactivate the default provided by SNMP.
- If you allow SNMP to determine this value for an AIX actual destination or a PSF other-driver attached actual destination, it must be one of the values of the server **snmp-aix-printer-models** attribute.
- For AIX actual destinations and PSF other-driver attached actual destinations on an AIX server, this value must match the file prefix of a file in the **/usr/lib/lpd/pio/predef** directory on the AIX processor on which the actual destination was created unless the **destination-model** is an InfoPrint model and then the external name (for example, an InfoPrint 20) is mapped to the predefined name for you.

- For AIX actual destinations, InfoPrint uses the value you specify here to determine the values to set for the **document-formats-supported** attribute.
- For PSF TCP/IP-attached actual destinations capable of printing halftones, and for any PSF actual destination that represents a printer device with a finisher attached, specify the model name in the format **InfoPrintxxxx**, where *xxxx* is the model number, for example, **InfoPrint4000-IR3-IR4**. Do not put a space between **InfoPrint** and the model number.

Note: If you configure these printer models as PSF other-driver attached actual destinations or as AIX actual destinations on an AIX server, specify the model name as the file prefix of a file in the `/usr/lib/lpd/pio/predef` directory unless the **destination-model** is an InfoPrint model and then the external name (for example, an InfoPrint 60) is mapped to the predefined name for you.

- InfoPrint compares the job attribute **destination-models-requested** to this attribute for scheduling.
- For IPP printers, InfoPrint uses the **destination-model** information for validation and scheduling.

destination-name

Identifies the name of this actual destination.

DSS

All

Type

Non-settable, single-valued

Input Synonyms

You can use the synonym **printer-name**, **printer**, or **physical-printer**.

Allowed Values

InfoPrint sets this value to the *DestinationName* portion of the argument used with the **pdcreate** command or with the **pdmigpp** utility when this actual destination was created.

Default Value

No default value

Usage Guidelines

- InfoPrint compares the job attribute **actual-destination-requested** to this attribute for validation and scheduling.
- The name must be unique in the namespace.

destination-needs-attention-time

Reports the amount of time the output device has been waiting for simple intervention, such as loading paper.

GUI label

Attention needed

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **printer-needs-attention-time**.

Allowed Values

InfoPrint sets this value to [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

No default value

destination-needs-key-operator-attention-time

Reports the amount of time the output device has been waiting for the attention of a key (or skilled) operator.

GUI label

Operator needed

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **printer-needs-key-operator-attention-time**.

Allowed Values

InfoPrint sets this value to [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

No default value

destination-pass-through

Lets you pass information to the DSS (destination driver). InfoPrint does not process the information, but passes it directly to the DSS. With the AIX DSS, the information is used to update the actual destinations's colon file.

For information about the use of **destination-pass-through** with **other-transform-options**, see 968.

GUI label

Other options

DSS

AIX, BSD, PSF, InfoPrint 2000

Type

Resettable, single-valued

Input Synonyms

You can use the synonym **printer-pass-through** or **other-options**.

Allowed Values

You can enter a text string up to 255 characters long containing update information.

Syntax

With AIX DSS:

```
'colon-file-attribute=value ...'
```

For example, to set the data stream filter attribute (**_d**) in the printer colon file to "passthrough" (**p**), enter:

```
destination-pass-through='_d=p'
```

Default Value

No default value

Usage Guidelines

If you use the **destination-pass-through** attribute when submitting a job to a PSF-other actual destination, you can either direct the options to the PSF DSS or to the backend specified in the value of the **destination-command** attribute. When you specify **-BE** in the value for the **destination-pass-through** attribute, InfoPrint passes all values preceding **-BE** to the PSF DSS. InfoPrint passes any values following **-BE** to the backend program.

destination-poll-interval

Specifies the amount of time in seconds between job status polls of a Internet Printing Protocol (IPP) printer or a Passthrough printer.

GUI label

Poll interval (sec)

DSS

IPP, Passthrough

Type

Resettable, single-valued

Allowed Values

You can enter a value from 0 through 2147483647.

Default Value

2

destination-realization

Indicates whether the destination is an actual destination or a logical destination.

DSS

All

Type

Initially settable, single-valued

Input Synonym

You can use the synonym **printer-realization**.

Allowed Values

You can enter **actual** as the value for the destination-realization attribute for an actual destination.

Default Value

There is no default.

destination-register-threshold

Specifies the amount of time that this actual destination will wait between attempts to communicate (register) with the server.

GUI label

Try to register with server

DSS

All

Type

Resettable, single-valued

Input Synonyms

You can use the synonym **printer-register-threshold** or **register-threshold**.

Allowed Values

You can enter a value of [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

10

Usage Guidelines

The **destination-register-threshold** value applies when the actual destination and the queue are in separate InfoPrint servers. If the InfoPrint server containing the queue is not running, the printer in the running server keeps trying to establish contact with the server that contains the queue. This attempt is made every *n* minutes with this effect:

- If you lower the **destination-register-threshold** value, network traffic increases when the server is down, but the actual destination registers more quickly when you bring up the server.
- If you raise the **destination-register-threshold** value, network traffic decreases when the server is down, but the actual destination registers more slowly when you bring up the server.

destination-release-timer

Specifies the maximum amount of time between jobs, in seconds, before InfoPrint gives up control of a PSF actual destination.

GUI label

Release time (sec)

DSS

PSF

Type

Resettable, single-valued

Input Synonym

You can use the synonym **printer-release-timer**.

Allowed Values

You can enter an integer from 0 through 9999. The unit value is seconds.

Default Value

9999

Usage Guidelines

- The **destination-release-timer** allows InfoPrint to share an output device with a print manager. Specify a value of 9999 if the output device is not shared.
- The **destination-release-timer** allows time for all processes to stop running gracefully as InfoPrint gives up control of the attached PSF actual destination.
- If the **non-process-runout-timer** attribute has a greater value than the **destination-release-timer** attribute, InfoPrint issues an automatic NPRO. However, it is recommended that you set **non-process-runout-timer** to a lower value than **destination-release-timer**.

destination-state

Identifies the current state of the actual destination.

GUI label

State

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **printer-state**.

Allowed Values

InfoPrint sets and updates the value to one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
connecting-to-printer	The actual destination has received a job and is trying to connect to its printer device. After it connects to the device, the actual destination locks the printer device until it finishes processing the job so that another print system cannot use the device. Note: This state applies only to AIX actual destinations and PSF other-driver attached actual destinations on InfoPrint Manager for AIX.

<i>Fixed Value</i>	<i>Explanation</i>
idle	The actual destination is waiting for a job. An actual destination can be idle even if its output device is printing a job from some other AIX process or from the AIX print-spooling subsystem; or from some other Windows application or the Windows spooler.
needs-attention	The actual destination can connect to the output device, but for some reason the output device cannot print.
needs-key-operator	This state occurs when there is a serious problem with the output device. Either the actual destination cannot connect to the output device or there is some other problem. For example, a printer device might be out of toner. InfoPrint automatically disables the actual destination when the actual destination enters this state. If the actual destination uses SNMP, InfoPrint automatically re-enables it when the problem is corrected. To prevent automatic re-enabling, manually disable the actual destination.
paused	The actual destination was paused with the pdpause command or by a job with job-start-wait=true .
printing	The actual destination is processing a job.
shutdown	The actual destination was shut down with the pdshutdown command. Note: This state applies only to PSF actual destinations.
timed-out	The actual destination received a job, but the actual destination could not connect to the printer device in the time specified by the printer-timeout-period actual destination attribute. Note: This state applies only to AIX actual destinations and PSF other-driver attached actual destinations.

Default Value

There is no default value.

destination-support-system

Identifies the type of destination support system for this actual destination.

DSS

All

Type

Initially settable, single-valued

Input Synonym

You can use the synonym **device-support-system**.

Allowed Values

For AIX:

<i>Fixed Value</i>	<i>Input Synonym</i>
aix	piobe

<i>Fixed Value</i>	<i>Input Synonym</i>
bsd	
psf	
IPP	
email	
generalized-fax	
IP2000	

Note: The **metacode** and **sapconnect** values are allowed only when their respective features are installed.

For Windows:

<i>Fixed Value</i>	<i>Input Synonym</i>
bsd	
psf	
IPP	
windows	passthrough

Default Value

psf

Usage Guidelines

- InfoPrint compares the job attribute **dss-requested** to this attribute for scheduling.
- You must enter a value for this attribute when you create an actual destination unless it will use the PSF DSS.

destination-tcpip-internet-address

Identifies the Internet Protocol address (IP Address parameter) of this actual destination. This is the Internet Protocol address assigned to the output device.

GUI label

TCP/IP address

DSS

AIX, BSD, PSF, InfoPrint 2000, IPP, Metacode, Passthrough

Type

Resettable, single-valued

Input Synonym

You can use the synonym **printer-tcpip-internet-address**.

Allowed Values

You can enter a text string up to 4095 characters long that is either of these types of address:

Dotted decimal address

A series of integers in the range of 0 to 255, each separated by a period, . (decimal address). For example:

9.99.12.85

Hostname

For example:

leo.infoprint.com

Note: When you create an SNMP printer, you must specify either the fully qualified printer name or the internet address. If you create an SNMP printer with an abbreviated printer name, InfoPrint issues the SNMP connection lost message when you try to enable the printer.

Default Value

No default value

Usage Guidelines

- You must enter a value for destinations to use SNMP.
- You must enter a value for PSF TCP/IP-attached actual destinations, for PSF upload-TCP/IP-attached actual destinations, and for InfoPrint 2000 actual destinations.

destination-tcpip-port-number

Identifies the Port Number parameter for PSF TCP/IP-attached and upload-TCP/IP-attached actual destinations. This is the TCP/IP port number configured at the output device.

GUI label

TCP/IP port number

DSS

PSF

Type

Resettable, single-valued

Input Synonym

You can use the synonym **printer-tcpip-port-number**.

Allowed Values

You can enter an integer from 1 through 2147483647, but you typically enter an integer from 5001 to 65535. For devices whose port is configurable, the port you specify must match the port configured at the output device.

Default Value

Defaults to **9001** for InfoPrint 1116, InfoPrint 1120, InfoPrint 1125, InfoPrint 1130, InfoPrint 1140, InfoPrint 1145, InfoPrint Color 1220, and InfoPrint Color 1228; otherwise, defaults to **5001**.

Usage Guidelines

You must enter a value for PSF TCP/IP-attached and upload-TCP/IP-attached actual destinations if the default is not correct for your printer. InfoPrint ignores this attribute for other attachment types.

destination-timeout-period

Specifies the amount of time, in seconds, that InfoPrint allows for the server to try to connect to a shared network printer (printer device) after the actual destination receives a new job request.

DSS

AIX, PSF

Type

Resettable, single-valued

Input Synonym

You can use the synonym **timeout-period** or **printer-timeout-period**.

Allowed Values

You can enter an integer from 0 through 2147483647. The unit is seconds.

Default Value

60

Usage Guidelines

- For PSF actual destinations, this attribute applies only to actual destinations with an attachment type of **other**.
- While the server is trying to connect to the printer device, this actual destination is in the **timed-out** state, but it can still accept jobs.
- If the server cannot connect to the printer device in the specified time:
 - The printer state becomes **timed-out**.
 - This actual destination will not accept new jobs.
 - InfoPrint might issue a warning message, depending on the notification profile of this actual destination.
 - The server continues to try to connect to the printer device until successful, or until this actual destination is disabled.
 - InfoPrint sends a warning message at the end of each timeout period (if specified by the notification profile).

device-contact

Identifies the contact for the output device associated with an actual destination.

DSS

All

Type

Settable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that contains the device's contact information.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying **-r all-device**.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query or set this attribute.
- Before you can change the **device-contact** attribute, you must have write permission to the actual destination and the **snmp-write-community-name** actual destination attribute must be set properly.
- The actual destination does not need to be disabled to change the value of this attribute.
- You cannot set device attributes and actual destination attributes in the same request.
- You cannot use anything other than the Replace operator of the **pdset** command for this attribute.

device-description

Identifies the description of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to a text string that contains a description of the device.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-input-trays

Identifies information about the input trays of the output device associated with an actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets each value to a text string that contains information about each of the device's input trays that could include medium, capacity, and level of medium.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-ip-address

Identifies the Internet Protocol (IP) address of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to a text string that contains the device's IP address.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying **-r all-device**.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-location

Identifies the location for the output device associated with an actual destination.

DSS

All

Type

Settable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that contains the device's contact information.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query or set this attribute.
- Before you can change the **device-location** attribute, you must have write permission to the actual destination and the **snmp-write-community-name** actual destination attribute must be set properly.
- The actual destination does not need to be disabled to change the value of this attribute.
- You cannot set device attributes and actual destination attributes in the same request.
- You cannot use anything other than the Replace operator of the **pdset** command for this attribute.

device-manufacturer

Identifies the manufacturer of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to a text string that contains the device's manufacturer.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-marker-supplies

Identifies the toner or ink level of the output device associated with an actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets each value to a text string containing information about each of the device's markers' toner or ink capacity and level.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-media-supported

Identifies the information regarding the media supported by the output device associated with an actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to a text string that contains information about each of the media supported by the device.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdlis** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-model

Identifies the model of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to a text string that contains the device's model.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdlis** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-name

Identifies the output device that this actual destination represents.

GUI label

Device or Windows port name (PSF Other-driver)

Windows port name (Passthrough DSSs)

URL (IPP)

Device (All other supported DSSs)

DSS

AIX, IPP, PSF Other-driver, Passthrough

Type

Initially settable, single-valued

Allowed Values

For AIX DSS and PSF Other-driver DSS on AIX, you can enter a text string up to 255 characters long that contains the name (ID) of the output device that prints jobs assigned to this actual destination. The value can identify the path to the device name, commonly located in `/dev` directory (such as `/dev/lp0`), or more generally, it is the name of an empty file used for controlling access to the device. InfoPrint Manager for AIX creates the empty file for you if you do not specify one.

For Internet Printing Protocol (IPP) DSS, enter the URL for the IPP printer.

For Passthrough DSS and PSF Other-driver DSS on Windows, enter the Windows **Port Name**.

Default Value

No default value except when you use this with the AIX DSS or the PSF Other-driver DSS on AIX. For these two DSSs, InfoPrint Manager for AIX creates a unique value for you.

Usage Guidelines

- On Windows, you must enter a value for this attribute when you create a PSF other-driver-attached actual destination or a Passthrough actual destination.
- On Windows, the device name must be the name of a Windows port that has already been created.
- If an AIX print queue has been configured for this actual destination, the device name appears in the `/etc/qconfig` file.
- Do not specify a value for PSF TCP/IP-attached or upload-TCP/IP-attached destinations.
- When you are working with AIX DSS actual destinations, see “Creating and Managing Actual Destinations” in the *InfoPrint Manager for AIX: Administrator’s Guide* for information about correcting the configuration of **remote-queue** printers that have **device-name** set to `/dev/null`.
- When you are driving the same physical device with multiple AIX DSSs and PSF Other-driver DSSs on AIX, use the same **device-name** for the actual destinations since the **device-name** is what InfoPrint Manager uses to control access to the physical device.

device-op-panel-locked

Identifies whether the operation panel of the output device associated with an actual destination is locked.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

true
false

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying **-r all-device**.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-output-bins

Identifies information about the output bins for the output device associated with an actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets each value to a text string that contains information about one of the device's output bins that could include medium, capacity, and level of medium.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute.

This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying **-r all-device**.

- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-printer-name

Identifies the name of the model of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single valued

Allowed Values

InfoPrint sets this value to a text string that contains the device's model name.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying **-r all-device**.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-ready-media

Identifies information about the media ready on the output device associated with an actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to a text string that contains information about the device's ready media.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdlis** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-serial-number

Identifies the serial number of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets each value to a text string that contains information about the device's serial number.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdlis** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-state

Identifies the state of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these device states:

- idle
- processing
- started
- stopped
- unknown

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdls** command by specifying **-r all-device**.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

device-support-system

See **destination-support-system**.

device-version

Identifies the version of the output device associated with an actual destination.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to a text string that contains the device's version.

Default Value

No default value

Usage Guidelines

- While this attribute is accessed through an actual destination, the information comes from the device the actual destination represents and not the actual destination, which is why InfoPrint considers this a device-specific attribute. This attribute is not contained in the actual destination's attributes set. You can list the device-specific attributes with the **pdlis** command by specifying `-r all-device`.
- If the value of the **snmp-active** actual destination attribute is **false**, this attribute is ignored.
- The device must support this attribute to query this attribute.

document-attributes-supported

Identifies the document attributes that this actual destination supports. InfoPrint checks the values listed with this attribute and merges them with the values supported by the server (found on the **document-attributes-supported** server attribute) during validation to allow jobs whose documents have these attributes to continue on to this actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets the values that lists the document attributes that this actual destination supports.

Note: This list includes only document attributes that directly affect the actual destination. Documents with attributes that affect the server, for example, **initial-value-document**, can be printed even though those attributes are not on this list.

Default Value

This list lists the **document-attributes-supported** by DSS that are merged with the **document-attributes-supported** by the server:

- AIX

content-orientation
default-character-mapping
default-input-tray
default-medium

destination-pass-through
plex
print-quality
sides

- BSD

destination-pass-through

- Passthrough (Windows) and IPP

default-medium

destination-pass-through

- PSF other-driver and command

account-text	number-up
address1-text	other-transform-options
address2-text	output-appearance
address3-text	output-bin
address4-text	output-format
base-printer	overlay
building-text	overlay-back
carriage-control-type	overlay-front
chars	page-definition
color-mapping-table	page-media-select
convert-to-ebcdic	page-select
data-fidelity-problem-reported	plex
default-character-mapping	printer-resolutions-used
default-input-tray	programmer-text
default-medium	resource-context
default-printer-resolution	resource-context-font
department-text	resource-context-form-definition
destination-pass-through	resource-context-overlay
document-finishing	resource-context-page-definition
font-fidelity-action	resource-context-page-segment
font-resolution	resource-context-user
font-processing-messages	resource-exit
form-definition	reverse-page-order
halftone	room-text
image-fit	scanner-correction
image-length	screen-frequency
image-out-format	segment-file-size
image-width	shared-formdef
input-exit	shift-out-shift-in
input-tray-select	sides
job-terminate-message-count	start-on-new-sheet
jog-between-job-copies	table-reference-characters
maximum-messages-printed	b-text
maximum-transform-pages-ahead	transform-message-file-name
mvs-destination	transform-output-file-name
mvs-forms	user-id-text
mvs-segment-id	x-image-shift
name-text	x-image-shift-back
new-line-option	xsl-style-sheet
new-line-option-data-encoding	y-image-shift
node-id-text	y-image-shift-back

- PSF TCP/IP

account-text
 address1-text
 address2-text
 address3-text
 address4-text
 base-printer
 building-text
 carriage-control-type
 chars
 color-mapping-table
 color-bits-per-plane
 color-profile
 color-toner-saver
 color-rendering-intent
 convert-to-ebcdic
 data-fidelity-problem-reported
 default-character-mapping
 default-input-tray
 default-medium
 default-printer-resolution
 department-text
 destination-pass-through
 document-finishing
 font-fidelity-action
 font-resolution
 font-processing-messages
 form-definition
 form-length
 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-destination
 mvs-forms
 mvs-segment-id
 name-text
 new-line-option
 new-line-option-data-encoding
 node-id-text
 number-up
 other-transform-options
 output-appearance
 output-bin
 output-format
 overlay
 overlay-back
 overlay-front
 page-definition
 page-media-select
 page-select
 plex
 programmer-text
 resource-context
 resource-context-font
 resource-context-form-definition
 resource-context-page-definition
 resource-context-page-segment
 resource-context-presentation-object-container
 resource-context-overlay
 resource-context-user
 resource-exit
 reverse-page-order
 room-text
 scanner-correction
 screen-frequency
 segment-file-size
 shared-formdef
 shift-out-shift-in
 sides
 start-on-new-sheet
 table-reference-characters
 b-text
 transform-message-file-name
 transform-output-file-name
 user-id-text
 x-image-shift
 x-image-shift-back
 xsl-style-sheet
 y-image-shift
 y-image-shift-back

- PSF Upload-TCP/IP (these types AIX only)

account-text	node-id-text
address1-text	number-up
address2-text	other-transform-options
address3-text	output-appearance
address4-text	output-bin
base-printer	output-format
building-text	overlay
carriage-control-type	overlay-back
chars	overlay-front
color-mapping-table	page-definition
color-bits-per-plane	page-media-select
color-profile	page-select
color-toner-saver	plex
color-rendering-intent	printer-pass-through
convert-to-ebcdic	programmer-text
data-fidelity-problem-reported	resource-context
default-character-mapping	resource-context-font
default-input-tray	resource-context-form-definition
default-medium	resource-context-page-definition
default-printer-resolution	resource-context-page-segment
department-text	resource-context-presentation-object-container
destination-pass-through	resource-context-overlay
document-finishing	resource-context-user
font-fidelity-action	resource-exit
font-resolution	reverse-page-order
font-processing-messages	room-text
form-definition	scanner-correction
halftone	screen-frequency
image-fit	segment-file-size
image-length	shared-formdef
image-out-format	shift-out-shift-in
image-width	sides
input-exit	start-on-new-sheet
input-tray-select	table-reference-characters
job-terminate-message-count	b-text
jog-between-job-copies	transform-message-file-name
maximum-messages-printed	transform-output-file-name
maximum-transform-pages-ahead	user-id-text
mvs-destination	x-image-shift
mvs-forms	x-image-shift-back
mvs-segment-id	xsl-style-sheet
name-text	y-image-shift
new-line-option	y-image-shift-back
new-line-option-data-encoding	

- Email

account-text
address1-text
address2-text
address3-text
address4-text
carriage-control-type
chars
convert-to-ebcdic
default-character-mapping
email-from-address
email-to-address
font-fidelity-action
font-resolution
form-definition
image-fit
image-length
image-width
input-exit
job-terminate-message-count
new-line-option
new-line-option-data-encoding
number-up
other-transform-options
output-bin
output-format

overlay
overlay-back
overlay-front
page-definition
page-select
plex
resource-context
resource-context-font
resource-context-form-definition
resource-context-overlay
resource-context-page-definition
resource-context-page-segment
resource-context-user
reverse-page-order
shared-formdef
shift-out-shift-in
sides
subject-text
table-reference-characters
transform-message-file-name
transform-output-file-name
x-image-shift
xsl-style-sheet
y-image-shift

- Generalized Fax

account-text
address1-text
address2-text
address3-text
address4-text
callback-number
carriage-control-type
chars
convert-to-ebcdic
default-character-mapping
default-medium
destination-company-text
fax-number
fax-to-name
font-fidelity-action
font-resolution
form-definition
image-fit
image-length
image-width
input-exit
job-terminate-message-count
new-line-option
new-line-option-data-encoding
number-up
originating-company-text
other-transform-options

output-bin
output-format
overlay
overlay-back
overlay-front
page-definition
page-select
plex
resource-context
resource-context-font
resource-context-form-definition
resource-context-overlay
resource-context-page-definition
resource-context-page-segment
resource-context-user
reverse-page-order
shared-formdef
shift-out-shift-in
sides
subject-text
table-reference-characters
transform-message-file-name
transform-output-file-name
x-image-shift
xsl-style-sheet
y-image-shift

- InfoPrint 2000

account-text	overlay-back
base-printer	overlay-front
carriage-control-type	page-definition
chars	page-select
convert-to-ebcdic	plex
data-fidelity-problem-reported	resource-context
default-character-mapping	resource-context-font
default-input-tray	resource-context-form-definition
default-medium	resource-context-overlay
default-print-resolution	resource-context-page-definition
destination-pass-through	resource-context-page-segment
form-definition	resource-context-user
halftone	resource-exit
image-fit	reverse-page-order
image-length	shared-formdef
image-width	shift-out-shift-in
image-out-format	sides
input-exit	start-on-new-sheet
job-terminate-message-count	table-reference-characters
new-line-option	transform-message-file-name
new-line-option-data-encoding	transform-output-file-name
number-up	x-image-shift
other-transform-options	x-image-shift-back
output-bin	xsl-style-sheet
output-format	y-image-shift
overlay	y-image-shift-back

- SAPConnect

document-comment	document-format
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Note: The PSF for AIX and PSF for Windows default values are now listed under:

- PSF TCP/IP
- PSF other-driver and Command
- Upload TCP/IP

document-finishings-supported

Identifies the document finishing options that this actual destination supports.

GUI label

Finishing options allowed

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **z-fold**

Default Values

No default value

Usage Guidelines

- InfoPrint compares the document attribute **document-finishing** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.
- The **document-finishing-supported** attribute is not applicable to UP³I devices. For information about UP³I devices, see the *InfoPrint Page Printer Formatting Aid: User's Guide*.

document-formats-ripped-at-destination

Identifies the document formats that can be ripped at this actual destination.

GUI label

Formats to RIP at destination

DSS

Email, InfoPrint 2000, PSF other-driver

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>	<i>DSS</i>
ascii		InfoPrint 2000
kg1		InfoPrint 2000
pcl	hppcl, hp-pcl	InfoPrint 2000, PSF other-driver
postscript	ps	Email, InfoPrint 2000, PSF other-driver
tiff		Email, PSF other-driver

Default Value

No default value

Usage Guidelines

- When you specify the **document-formats-ripped-at-destination** attribute for a PSF other-driver actual destination that actual destination can be used in three ways:

1. To pass specified document-format jobs, especially with PostScript or PCL data, directly to the actual destination.
 2. To transform a job to AFP and then to PCL image when necessary.
 3. To transform all other datastreams (SAP, TIFF, JPEG, PDF, and so forth) to AFP and then to PCL image when necessary.
- When jobs are transformed, they print with PSF style auxiliary sheets, and the jobs obtain accounting information from PSF, which appears in the PSF accounting logs.
 - When jobs are passed through directly to the actual destination, they print with “other-driver” style auxiliary sheets, and the jobs obtain accounting information the way the other driver does (for example, the way the AIX DSS obtains the information on AIX, and the way the Passthrough DSS obtains the information on Windows).

document-formats-supported

Identifies the document formats that this actual destination supports. InfoPrint sets this value dynamically based on the DSS and the document formats for which transforms are available.

GUI label

Formats allowed

DSS

All

Type

Resettable, multi-valued

Allowed Values

There are no restrictions for these values based on the DSS type. However, it is the InfoPrint Administrator’s responsibility when modifying the defaults to make sure that either the DSS can handle the specified formats or to set up a transform object associated with the actual destination to transform the format into something that the DSS can handle.

<i>Fixed Value</i>	<i>Input Synonym</i>
ascii	
dbcs-ascii	
ditroff	
dpf-ipds	
d630	
epson	
gif	
hpgl	hp-gl
iso-6429	
jpeg	
kgf	
line-data	
modca-p	afpds
passthru	

<i>Fixed Value</i>	<i>Input Synonym</i>
pcl	hppcl, hp-pcl
pdf	
postscript	ps
ppds	
ppml	
sap	
sap-abap	
simple-text	text
tiff	
xml	

Default Values

AIX **ascii, hpgl, iso-6429, passthru, pcl, and postscript.**

Based on the value of the **destination-model** attribute and how the **/usr/lpd/pio/predef** directory defines the printer model.

BSD **ascii, iso-6429, pcl, ppds, postscript, simple-text.**

PSF upload-TCP/IP-attached actual destination

If all transforms are available, **dbcs-ascii, ditroff, gif, jpeg, line-data, modca-p, pcl, postscript, sap, sap-abap, tiff, xml**

Other PSF actual destinations with PSF DSS for AIX

If all transforms are available, **ascii, dbc-ascii, ditroff, gif, jpeg, line-data, modca-p, pcl, pdf, postscript, ppml** (when Print-On-Demand feature is installed), **sap** (when SAP Print feature is installed), **sap-abap** (when SAP Print feature is installed), **tiff, xml**

Other PSF actual destinations with PSF DSS for Windows

If all transforms are available, **ascii, dbc-ascii, dpf-ipds, line-data, modca-p, pcl, pdf, postscript, gif, jpeg, sap** (when SAP Print feature is installed), **sap-abap** (when SAP Print feature is installed), **tiff, xml**

InfoPrint 2000

If all transforms are available, **dbcs-ascii, ditroff, gif, jpeg, kgl, line-data, modca-p, pcl, pdf, postscript, sap, sap-abap, sap-otf, tiff, xml**

Generalized Fax, Email

If all transforms are available, **dbcs-ascii, ditroff, gif, jpeg, line-data, modca-p, pcl, pdf, postscript, sap, sap-abap, sap-otf, tiff, xml**

Passthrough

ascii, iso-6429, pcl, ppds, postscript, simple-text.

IPP **ascii, iso-6429, pcl, ppds, postscript, simple-text.**

SAPconnect

ascii, tiff

Usage Guidelines

- When you create a PSF, email, generalized fax, or InfoPrint 2000 actual destination, InfoPrint sets these values to the document formats for which transforms are available. When the server is shut down and restarted, InfoPrint updates the values to reflect transforms that have been added or deleted. You can also modify these values.
- InfoPrint compares the document attribute **document-format** to this attribute for validation and scheduling.

- Delete attribute values to restrict use of this actual destination.
- For an AIX DSS, if the printer natively supports printing PDF data stream, you can add the value **pdf** to the **document-formats-supported** actual destination attribute.
- For a PSF-other DSS on an AIX server, if the **document-formats-ripped-at-destination** attribute contains the value **pdf**, you can add the value **pdf** to the **document-formats-supported** actual destination attribute.
- If you cannot print PDF data stream to an AIX DSS after you added the **pdf** value to the **document-formats-supported** actual destination attribute, you can look in the error.log file of the server for this message: "0782-026 A virtual printer has not been configured for print queue and queue device PD_Cojnec:queue_device. Refer to the mkvirprt command, or use local problem reporting procedures." If you find this message, it indicates that you have an old printer that was created before you migrated to the latest version of InfoPrint Manager. To resolve this problem, create a new printer.

document-types-supported

Identifies the types of documents that this actual destination supports.

GUI label

Types allowed

DSS

All

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>DSS</i>
color-mapping-table	PSF
document-definition	PSF DSS for AIX, Email, Generalized Fax, InfoPrint 2000
email-body	Email
email-signature	Email
file-reference	All
font	PSF, Email, Generalized Fax, InfoPrint 2000
form-definition	PSF, Email, Generalized Fax, InfoPrint 2000
formatted-job-ticket	PSF, email, Generalized Fax, InfoPrint 2000
insert-sheet	PSF, Email, Generalized Fax, InfoPrint 2000
job-ticket	PSF, Email, Generalized Fax, InfoPrint 2000
overlay	PSF, Email, Generalized Fax, InfoPrint 2000
page-definition	PSF, Email, Generalized Fax, InfoPrint 2000
page-segment	PSF, Email, Generalized Fax, InfoPrint 2000
page-shift-file	PSF, Email, Generalized Fax, InfoPrint 2000
printable	All
resource	PSF DSS for AIX, Email, Generalized Fax, InfoPrint 2000

Default Values

AIX, BSD, Metacode

file-reference, printable

PSF DSS for AIX

color-mapping-table, document-definition, file-reference, font, form-definition, formatted-job-ticket, insert-sheet, job-ticket, overlay, page-definition, page-segment, page-shift-file, printable, resource

PSF DSS for Windows

color-mapping-table, file-reference, font, form-definition, formatted-job-ticket, insert-sheet, job-ticket, overlay, page-definition, page-segment, page-shift-file, printable

Email document-definition, email-body, email-signature, file-reference, font, form-definition, formatted-job-ticket, insert-sheet, job-ticket, overlay, page-definition, page-segment, page-shift-file, printable, resource

Generalized Fax

document-definition, file-reference, font, form-definition, formatted-job-ticket, insert-sheet, job-ticket, overlay, page-definition, page-segment, page-shift-file, printable, resource

InfoPrint 2000

document-definition, file-reference, font, form-definition, formatted-job-ticket, form-definition, insert-sheet, job-ticket, overlay, page-definition, page-shift-file, printable, resource

Passthrough

file-reference, printable

IPP file-reference, printable

Usage Guidelines

- InfoPrint compares the document attribute **document-type** to this attribute for scheduling.
- You can use this attribute to restrict use of this actual destination.

document-varying-attributes-supported

Identifies the document-varying attributes that this actual destination supports. InfoPrint checks this attribute during validation to allow jobs whose documents have these attributes to continue on to this actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets these values to include the varying document attributes that this actual destination supports.

Note: This list includes only document attributes that directly affect the actual destination. Documents with attributes that affect the server, for example, **initial-value-document**, can be printed even though those attributes are not on this list.

Default Value

- PSF

carriage-control-type	overlay-back
chars	overlay-front
convert-to-ebcdic	page-definition
copy-count	page-select
default-input-tray	plex
default-medium	resource-context-page-definition
document-finishing	resource-context-user
document-format	resource-exit
halftone	scanner-correction
image-fit	screen-frequency
image-length	shift-out-shift-in
image-out-format	sides
image-width	start-on-new-sheet
initial-value-document	table-reference-characters
input-exit	transform-message-file-name
new-line-option	transform-output-file-name
new-line-option-data-encoding	x-image-shift
other-transform-options	x-image-shift-back
output-appearance	y-image-shift
output-bin	y-image-shift-back
overlay	

- AIX

content-orientation	document-content
copy-count	document-format
default-character-mapping	document-type
default-input-tray	plex
default-medium	print-quality
destination-pass-through	sides

- Generalized Fax and Email

carriage-control-type	overlay-back
chars	overlay-front
convert-to-ebcdic	page-definition
copy-count	page-select
document-format	plex
image-fit	resource-context-page-definition
image-length	resource-context-user
image-width	shift-out-shift-in
input-exit	sides
new-line-option	table-reference-characters
new-line-option-data-encoding	transform-message-file-name
other-transform-options	transform-output-file-name
output-bin	x-image-shift
overlay	y-image-shift

- **InfoPrint 2000**

carriage-control-type
chars
convert-to-ebcdic
copy-count
default-medium
default-input-tray
document-format
halftone
image-fit
image-length
image-out-format
image-width
input-exit
new-line-option
new-line-option-data-encoding
other-transform-options
overlay
overlay-back

overlay-front
page-definition
page-select
plex
resource-context-page-definition
resource-context-user
resource-exit
shift-out-shift-in
sides
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

- **Metacode**

copy-count
default-medium
document-comment
document-format

jde-jdl
metacode-debug-options
new-line-option
page-select

dss-job-message-log-size

Indicates the size, in kilobytes, the DSS job message log can grow to.

GUI label

Job message log size (KBytes)

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 10 to 2000000. The unit is kilobytes.

Default Value

8192

Usage Guidelines

This attribute is used only when the value of the **dss-job-message-disposition** attribute is **log**.

dss-job-message-log-wrap

Indicates whether InfoPrint should start overwriting messages at the beginning of the DSS job message log when the log is full.

GUI label

Wrap job message log

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

This attribute is used only when the value of the **dss-job-message-disposition** attribute is **log**.

ebcdic-character-mapping

Indicates the EBCDIC code page that PSF/MVS uses to map the attributes of this PSF upload-TCP/IP-attached destination.

GUI label

EBCDIC code page to use

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter the name of an EBCDIC code page.

Default Value

ibm-037

Usage Guidelines

InfoPrint requires this attribute for PSF upload-TCP/IP-attached actual destinations and ignores it for other attachment types.

enabled

Indicates whether this actual destination is enabled and can accept jobs.

GUI label

Enabled

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to:

- **true** when an InfoPrint administrator has issued the **pdenable** command, and the queue associated with the destination exists and is in communication with this actual destination.
- **false** when an InfoPrint administrator has disabled this actual destination with the **pddisable** command, or when some printer error has been detected.

Default Value

false

end-message-supported

Indicates whether this actual destination supports the job attribute **job-end-message**.

GUI label

Send job completed message

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- Use this attribute to allow operators to receive messages that users specify with the **job-end-message** job attribute when they submit the job. When the value of this attribute is **true**, InfoPrint sends the message to the operators specified by the **notify-operator** attribute for this actual destination when the job finishes printing.
- InfoPrint compares the job attribute **job-end-message** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

end-sheets-supported

Identifies the types of end sheets that this actual destination supports.

GUI label

End sheets allowed

DSS

AIX, PSF

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values. For PSF only, you can enter a string up to 255 characters long that contains identifiers of auxiliary-sheet objects.

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
accounting-log	PSF	This value is technically valid, but should not be used for end sheets.

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
blank	PSF	The end sheet is blank.
brief	AIX, PSF	The end sheet style is brief.
full	AIX, PSF	The end sheet style is full.
job-ticket	PSF	The job ticket is printed on the end sheet.
none	AIX, PSF	No end sheet prints.
64xx	PSF	The end sheet style is for the 64xx and 6500 printers.

Default Values

AIX **brief, full, none**

PSF **accounting-log, blank, brief, full, job-ticket, none, 64xx**, and the names of other defined auxiliary sheets which have legal PSF auxiliary sheet attributes.

Usage Guidelines

- PSF actual destinations can use auxiliary-sheet objects if they have valid **psf-exit-xxx** values. AIX actual destinations print start and end sheets, but they do not use auxiliary-sheet objects.
- InfoPrint verifies that the value of the **printer-end-sheet** attribute is a value of this attribute.
- You cannot delete a value from this attribute if the value you want to delete is the value of the **printer-end-sheet** attribute.
- For PSF actual destinations, InfoPrint sets this value dynamically to the names of all defined auxiliary sheets with legal attributes. You should never have to reset this value.

file-size-range-supported

Defines the range of document file sizes in bytes (octets) that this actual destination can accept.

DSS

All

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Separate the values with a colon, for example:

0:1000000

Components

- **lower-limit**
Identifies the lower limit value of the file size. The unit value is octets (bytes).
 - *Type*

Single-valued

– *Allowed Values*

You can enter an integer from 0 to 9223372036854775800. The lower limit must be less than or equal to the upper limit.

– *Default Value*

0

- **upper-limit**

Identifies the upper limit value of the file size. The unit value is octets (bytes).

– *Type*

Single-valued

– *Allowed Values*

You can enter an integer from 0 to 9223372036854775800. The upper limit must be greater than or equal to the lower limit.

– *Default Value*

0:2147483647

Usage Guidelines

- You use this attribute to indicate whether your system is large-file enabled.
- You can use the **large-file-enabled** actual destination attribute to set the **file-size-range-supported** actual destination attribute. However, you cannot specify both **large-file-enabled** and **file-size-range-supported**.
- InfoPrint compares the **octet-count** document attribute to this attribute for validation and scheduling.

font-resolutions-supported

Indicates the values of the document attribute **font-resolution** that this actual destination accepts.

GUI label

Font resolutions allowed

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

- 240
- 300
- open-type
- outline

Default Values

240, 300, open-type, outline

Usage Guidelines

- Usually the font resolution and the printer resolution match, but there are two cases when they do not:
 - Some printer devices, for example, the InfoPrint 60 and InfoPrint 4000s, can print fonts of any resolution, although the print head is always 600 pels.
 - It is possible to print a document created with fonts of one resolution on a printer device with a different resolution by substituting fonts. Depending on the document, the output might or might not be acceptable.
- InfoPrint compares the document attribute **font-resolution** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.
- The **open-type** value is only valid for printers that support TrueType and OpenType fonts. For more information about TrueType or OpenType fonts, see *Using OpenType Fonts in an AFP System*.

force-destination-setup

Indicates whether jobs requiring resources that this actual destination does not have ready or does not support should be held or scheduled to print.

GUI label

Disable on job mismatch

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **force-printer-setup**.

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When the value of **force-destination-setup** is **false**, InfoPrint checks that the actual destination can process each job in the queue before scheduling the job to print. If the job requires any resources that are not ready or not supported, the job is RIPped if appropriate, then held. The **required-resources-not-ready** job

attribute indicates what resources are not ready. The **required-resources-not-supported** job attribute indicates what resources are not supported.

- When the value of **force-destination-setup** is **true**, InfoPrint does not check whether the actual destination can process the job until the job is sent to the actual destination. At that time, if any required resources are not ready or not supported, InfoPrint disables the actual destination and sends a message to the operator to change the destination setup. When the operator enables the actual destination, the job is printed or sent.

force-micr-font-print

Indicates whether PSF will force jobs requesting MICR fonts to print on non-MICR printers.

GUI label

Force MICR font print

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When the value of **force-micr-font-print** is **false**, InfoPrint will not print jobs that use MICR fonts on non-MICR printers, and the job is terminated.
- When the value of **force-micr-font-print** is **true**, InfoPrint will print jobs that use MICR fonts on non-MICR printers.

force-printer-setup

See **force-destination-setup**.

form-definition

Identifies the default form definition that the output device uses when printing or sending a document.

GUI label

Form definition

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 8 characters long that contains the form-definition ID.

Default Value

Standard InfoPrint Manager Administration GUI and command line
F1A10111

Basic InfoPrint Manager Administration GUI
F100D

Usage Guidelines

- The form definition controls positioning of the output image on the page.
- A form definition can specify overlays, a paper source for cut-sheet printers (input bin selection), duplex printing, and text suppression on a page.

form-length-range-supported

Specifies, in millimeters, the lower and upper numeric boundaries for the **form-length** document attribute that lets you specify the length of the form on the physical printer.

GUI label

Form length range supported

DSS

PSF TCP/IP

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Separate values with colons, for example,

0:0 To turn off the **form-length** attribute specification for the destination (because a value of 0 for **form-length** has no effect).

0:609.6 To enforce the maximum value for **form-length**, which is 609.6 mm (24.0 inches).

Components

- **lower-limit**

Defines the minimum length that you can specify with the **form-length** document or default document attribute.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from 0 mm through 3467.9 mm. The unit of measure is millimeters.

- *Default Value*

0

- **upper-limit**

Defines the maximum length that you can specify with the **form-length** document or default document attribute.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from 0 mm through 3467.9 mm. The unit of measure is millimeters.

- *Default Value*

3467.9

Usage Guidelines

- InfoPrint compares the **form-length** document attribute to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

forms-ready

Indicates the forms to use with the actual destination. Used with the **forms job/default job** attribute for scheduling.

GUI label

Forms ready

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string that identifies the name of the form to use.

Default Value

The default is an * (asterisk).

Usage Guidelines

- There is no **supported** attribute associated with the **forms-ready** attribute. Therefore, a job with any form will be accepted, but it can remain in the queue until the appropriate **forms-ready** value is set.
- If you specify an * (asterisk) for the **forms-ready** attribute, any job will be scheduled to the associated actual destination.
- InfoPrint compares the **forms-ready** attribute with the **forms** job/default job attribute for validation and scheduling.

halftones-supported

Identifies the values for the **halftone** document attribute that this actual destination supports. The halftone values are used to prepare color and gray-scale documents for printing on bi-level, black and white printers.

GUI label

Halftones allowed

DSS

PSF, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

The value of a **halftone** attribute is a combination of screen-name and output-appearance in the format: *screen-name:output-appearance*.

For custom halftones, the value can also be a combination of screen-name, output-appearance, and saved-calibration in the format: *screen-name:output-appearance.saved-calibration*.

You can enter a customized value or any of the supported (default) values for a particular model. The supported values by models follow.

With the InfoPrint 21, you can select the one of these halftone values:

- **ibm711pi:standard**
- **ibm711pi:highlight-midtones**
- **ibm711pi:dark**
- **ibm851pi:standard**
- **ibm851pi:highlight-midtones**
- **ibm851pi:dark**
- **ibm1061pi:standard**
- **ibm1061pi:highlight-midtones**
- **ibm1061pi:dark**

- **ibm141pi:standard**
- **ibm141pi:highlight-midtones**
- **ibm141pi:dark**
- **ibm150pi:standard**
- **ibm150pi:highlight-midtones**
- **ibm150pi:dark**
- **ibm200pi:standard**
- **ibm200pi:highlight-midtones**
- **ibm200pi:dark**

With the InfoPrint 2060ES, InfoPrint 2075ES, InfoPrint 2090ES, and InfoPrint 2105ES printers, you can select one of these halftone values:

- **ibm85pi:standard**
- **ibm85pi:highlight-midtones**
- **ibm85pi:dark**
- **ibm85pi:accutone**
- **ibm85piRot90:standard**
- **ibm85piRot90:highlight-midtones**
- **ibm85piRot90:dark**
- **ibm85piRot90:accutone**
- **ibm106pi:standard**
- **ibm106pi:highlight-midtones**
- **ibm106pi:dark**
- **ibm106pi:accutone**
- **ibm106piRot90:standard**
- **ibm106piRot90:highlight-midtones**
- **ibm106piRot90:dark**
- **ibm106piRot90:accutone**
- **ibm121pi:standard**
- **ibm121pi:highlight-midtones**
- **ibm121pi:dark**
- **ibm121pi:accutone**
- **ibm121piRot90:standard**
- **ibm121piRot90:highlight-midtones**
- **ibm121piRot90:dark**
- **ibm121piRot90:accutone**
- **ibm141pi:standard**
- **ibm141pi:highlight-midtones**
- **ibm141pi:dark**
- **ibm141pi:accutone**
- **ibm141piRot90:standard**
- **ibm141piRot90:highlight-midtones**
- **ibm141piRot90:dark**
- **ibm141piRot90:accutone**

Note: You cannot use the **ibm711pi...** values with the InfoPrint 2060ES, InfoPrint 2075ES, InfoPrint 2090ES, and InfoPrint 2105ES printers.

With the InfoPrint 2190, InfoPrint 2210, and InfoPrint 2235 printers, you can select one of these halftone values:

- **ibm851pi:standard**
- **ibm851pi:highlight-midtones**
- **ibm851pi:dark**
- **ibm851pi:dark2**
- **ibm851pi:accutone**
- **ibm851piRot90:standard**
- **ibm851piRot90:highlight-midtones**
- **ibm851piRot90:dark**
- **ibm851piRot90:dark2**
- **ibm851piRot90:accutone**
- **ibm1061pi:standard**
- **ibm1061pi:highlight-midtones**
- **ibm1061pi:dark**
- **ibm1061pi:dark2**
- **ibm1061pi:accutone**
- **ibm1061piRot90:standard**
- **ibm1061piRot90:highlight-midtones**
- **ibm1061piRot90:dark**
- **ibm1061piRot90:dark2**
- **ibm1061piRot90:accutone**
- **ibm1211pi:standard**
- **ibm1211pi:highlight-midtones**
- **ibm1211pi:dark**
- **ibm1211pi:dark2**
- **ibm1211pi:accutone**
- **ibm1211piRot90:standard**
- **ibm1211piRot90:highlight-midtones**
- **ibm1211piRot90:dark**
- **ibm1211piRot90:dark2**
- **ibm1211piRot90:accutone**
- **ibm1411pi:standard**
- **ibm1411pi:highlight-midtones**
- **ibm1411pi:dark**
- **ibm1411pi:dark2**
- **ibm1411pi:accutone**
- **ibm1411piRot90:standard**
- **ibm1411piRot90:highlight-midtones**
- **ibm1411piRot90:dark**
- **ibm1411piRot90:dark2**
- **ibm1411piRot90:accutone**

With the InfoPrint 4000 (IR1/IR2) or InfoPrint 4000-IR3-IR4 printer, you can enter one of these halftone values:

- **ibm711pi:standard**
- **ibm711pi:highlight-midtones**
- **ibm711pi:dark**
- **ibm711pi:standard.enhtoner**
- **ibm711pi:highlight-midtones.enhtoner**
- **ibm711pi:dark.enhtoner**
- **ibm851pi:standard**
- **ibm851pi:highlight-midtones**
- **ibm851pi:dark**
- **ibm851pi:standard.enhtoner**
- **ibm851pi:highlight-midtones.enhtoner**
- **ibm851pi:dark.enhtoner**
- **ibm1061pi:standard**
- **ibm1061pi:highlight-midtones**
- **ibm1061pi:dark**
- **ibm1061pi:standard.enhtoner**
- **ibm1061pi:highlight-midtones.enhtoner**
- **ibm1061pi:dark.enhtoner**
- **ibm1411pi:standard**
- **ibm1411pi:highlight-midtones**
- **ibm1411pi:dark**
- **ibm1411pi:standard.enhtoner**
- **ibm1411pi:highlight-midtones.enhtoner**
- **ibm1411pi:dark.enhtoner**

With the InfoPrint 4100-HD3-HD4, 4100-HD5-HD6, 4100-HS3, 4100-MD1-MD2, 4100-MS1, 4100-PD1-PD2 printers, and 4100-PS1 printers, you can enter one of these halftone values:

- **ibm711pi:standard**
- **ibm711pi:highlight-midtones**
- **ibm711pi:dark**
- **ibm711pi:dark2**
- **ibm711pi:accutone**
- **ibm711piRot90:standard**
- **ibm711piRot90:highlight-midtones**
- **ibm711piRot90:dark**
- **ibm711piRot90:dark2**
- **ibm711piRot90:accutone**
- **ibm851pi:standard**
- **ibm851pi:highlight-midtones**
- **ibm851pi:dark**
- **ibm851pi:dark2**
- **ibm851pi:accutone**
- **ibm851piRot90:standard**

- `ibm85lpiRot90:highlight-midtones`
- `ibm85lpiRot90:dark`
- `ibm85lpiRot90:dark2`
- `ibm85lpiRot90:accutone`
- `ibm106lpi:standard`
- `ibm106lpi:highlight-midtones`
- `ibm106lpi:dark`
- `ibm106lpi:dark2`
- `ibm106lpiRot90:standard`
- `ibm106lpiRot90:highlight-midtones`
- `ibm106lpiRot90:dark`
- `ibm106lpiRot90:accutone`
- `ibm106lpiRot90:dark2`
- `ibm106lpi:accutone`
- `ibm141lpi:standard`
- `ibm141lpi:highlight-midtones`
- `ibm141lpi:dark`
- `ibm141lpi:dark2`
- `ibm141lpi:accutone`
- `ibm141lpiRot90:standard`
- `ibm141lpiRot90:highlight-midtones`
- `ibm141lpiRot90:dark`
- `ibm141lpiRot90:dark2`
- `ibm141lpiRot90:accutone`

With the InfoPrint 4100 printers, you can enter one of these halftone values:

- `ibm71lpi:standard`
- `ibm71lpi:highlight-midtones`
- `ibm71lpi:dark`
- `ibm71lpiRot90:standard`
- `ibm71lpiRot90:highlight-midtones`
- `ibm71lpiRot90:dark`
- `ibm85lpi:standard`
- `ibm85lpi:highlight-midtones`
- `ibm85lpi:dark`
- `ibm85lpiRot90:standard`
- `ibm85lpiRot90:highlight-midtones`
- `ibm85lpiRot90:dark`
- `ibm106lpi:standard`
- `ibm106lpi:highlight-midtones`
- `ibm106lpi:dark`
- `ibm106lpiRot90:standard`
- `ibm106lpiRot90:highlight-midtones`
- `ibm106lpiRot90:dark`
- `ibm141lpi:standard`

- **ibm141pi:highlight-midtones**
- **ibm141pi:dark**
- **ibm141piRot90:standard**
- **ibm141piRot90:highlight-midtones**
- **ibm141piRot90:dark**

With the InfoPrint 75 printers, you can select one of these halftone values:

- **ibm85pi:standard**
- **ibm85pi:highlight-midtones**
- **ibm85pi:dark**
- **ibm85pi:dark2**
- **ibm85pi:accutone**
- **ibm85piRot90:standard**
- **ibm85piRot90:highlight-midtones**
- **ibm85piRot90:dark**
- **ibm85piRot90:dark2**
- **ibm85piRot90:accutone**
- **ibm106pi:standard**
- **ibm106pi:highlight-midtones**
- **ibm106pi:dark**
- **ibm106pi:dark2**
- **ibm106pi:accutone**
- **ibm106piRot90:standard**
- **ibm106piRot90:highlight-midtones**
- **ibm106piRot90:dark**
- **ipm106piRot90:dark2**
- **ibm106piRot90:accutone**
- **ibm121pi:standard**
- **ibm121pi:highlight-midtones**
- **ibm121pi:dark**
- **ibm121pi:dark2**
- **ibm121pi:accutone**
- **ibm121piRot90:standard**
- **ibm121piRot90:highlight-midtones**
- **ibm121piRot90:dark**
- **ibm121piRot90:dark2**
- **ibm121piRot90:accutone**
- **ibm141pi:standard**
- **ibm141pi:highlight-midtones**
- **ibm141pi:dark**
- **ibm141pi:dark2**
- **ibm141pi:accutone**
- **ibm141piRot90:standard**
- **ibm141piRot90:highlight-midtones**
- **ibm141piRot90:dark**

- **ibm141lpiRot90:dark2**
- **ibm141lpiRot90:accutone**

With the InfoPrint 100 printers, you can select one of these halftone values:

- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm85lpi:dark2**
- **ibm85lpi:accutone**
- **ibm85lpiRot90:standard**
- **ibm85lpiRot90:highlight-midtones**
- **ibm85lpiRot90:dark**
- **ibm85lpiRot90:dark2**
- **ibm85lpiRot90:accutone**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm106lpi:dark2**
- **ibm106lpi:accutone**
- **ibm106lpiRot90:standard**
- **ibm106lpiRot90:highlight-midtones**
- **ibm106lpiRot90:dark**
- **ipm106lpiRot90:dark2**
- **ibm106lpiRot90:accutone**
- **ibm121lpi:standard**
- **ibm121lpi:highlight-midtones**
- **ibm121lpi:dark**
- **ibm121lpi:dark2**
- **ibm121lpi:accutone**
- **ibm121lpiRot90:standard**
- **ibm121lpiRot90:highlight-midtones**
- **ibm121lpiRot90:dark**
- **ibm121lpiRot90:dark2**
- **ibm121lpiRot90:accutone**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm141lpi:dark2**
- **ibm141lpi:accutone**
- **ibm141lpiRot90:standard**
- **ibm141lpiRot90:highlight-midtones**
- **ibm141lpiRot90:dark**
- **ibm141lpiRot90:dark2**
- **ibm141lpiRot90:accutone**

With the InfoPrint SP 8200 DN1 printers, you can select one of these halftone values:

- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm85lpi:dark2**
- **ibm85lpi:accutone**
- **ibm85lpiRot90:standard**
- **ibm85lpiRot90:highlight-midtones**
- **ibm85lpiRot90:dark**
- **ibm85lpiRot90:dark2**
- **ibm85lpiRot90:accutone**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm106lpi:dark2**
- **ibm106lpi:accutone**
- **ibm106lpiRot90:standard**
- **ibm106lpiRot90:highlight-midtones**
- **ibm106lpiRot90:dark**
- **ibm106lpiRot90:dark2**
- **ibm106lpiRot90:accutone**
- **ibm121lpi:standard**
- **ibm121lpi:highlight-midtones**
- **ibm121lpi:dark**
- **ibm121lpi:dark2**
- **ibm121lpi:accutone**
- **ibm121lpiRot90:standard**
- **ibm121lpiRot90:highlight-midtones**
- **ibm121lpiRot90:dark**
- **ibm121lpiRot90:dark2**
- **ibm121lpiRot90:accutone**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm141lpi:dark2**
- **ibm141lpi:accutone**
- **ibm141lpiRot90:standard**
- **ibm141lpiRot90:highlight-midtones**
- **ibm141lpiRot90:dark**
- **ibm141lpiRot90:dark2**
- **ibm141lpiRot90:accutone**

For all other base-printer models, you can enter one of these halftone values:

- **ibm71lpi:standard**

- **ibm711pi:highlight-midtones**
- **ibm711pi:dark**
- **ibm851pi:standard**
- **ibm851pi:highlight-midtones**
- **ibm851pi:dark**
- **ibm1061pi:standard**
- **ibm1061pi:highlight-midtones**
- **ibm1061pi:dark**
- **ibm1411pi:standard**
- **ibm1411pi:highlight-midtones**
- **ibm1411pi:dark**

Default Value

See **Allowed Values**.

Usage Guidelines

- InfoPrint compares the **halftone** document attribute to this attribute for validation and scheduling.
- You can use this attribute to restrict the use of this actual destination.
- The **halftones-supported** actual destination attribute is used only for GIF, JPEG, PDF, PostScript, and TIFF documents.

image-fit-supported

Specifies the methods of adjusting images to fit on the printed page that this actual destination supports.

GUI label

Image fit allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter one of these fixed values:

Value	Image formats
position-and-trim	All image formats
scale-to-fit	TIFF, GIF, and JPEG image formats

Default Value

No default value

Usage Guidelines

InfoPrint compares the document attribute **image-fit** to this attribute for validation and scheduling.

image-length

Specifies the default length of a page of PostScript, PCL, TIFF, GIF, JPEG, or PDF data after it has been transformed for InfoPrint printing or transmission.

GUI label

Finished page length (inches) or (mm)

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

The value you specify is in the form *nnnn.nnnu*

nnnn.nnn is a number that can optionally contain a decimal point.

u is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit, the default unit is pels. You cannot use a decimal point when the unit is pels.

For 240-pel resolution printers, valid values are:

16 - 12720 pels
0.065 - 53 inches
1.641 - millimeters
1346.2

For 300-pel resolution printers, valid values are:

16 - 15900 pels
0.052 - 53 inches
1.313 - millimeters
1346.2

For 480-pel resolution printers, valid values are:

16 - 25440 pels
0.065 - 53 inches
1.641 - millimeters
1346.2

For 600-pel resolution printers, valid values are:

16 - 31800 pels
0.052 - 53 inches
1.313 - millimeters
1346.2

Default Value

No default value

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PCL, PDF, PostScript, and TIFF documents.
- This attribute is not valid for ASCII documents.
- If a text margin is already built into the file, try **image-length=11i** to set the length to 11 inches.
- This attribute is used if you do not specify a value for the **image-length** document attribute or in the file specified by the **rip-ini-file** attribute.

image-out-formats-supported

Specifies the formats of image data, produced by the program that transforms line data to AFP data, that this actual destination supports.

GUI label

Image out formats allowed

DSS

PSF, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **ioca-uncompressed**
- **im1**
- **io1**
- **io1-g4**
- **io1-mmr**
- **asis**

Default Values

ioca-uncompressed, im1, io1, io1-g4, io1-mmr, asis

Usage Guidelines

InfoPrint compares the document attribute **image-out-format** to this attribute for validation and scheduling. You should use the document attribute when you print line-data documents.

image-width

Specifies the default width of a page of PostScript, PCL, TIFF, GIF, JPEG, or PDF data after it has been transformed for InfoPrint printing or transmission.

GUI label

Finished page width (inches) or (mm)

DSS

PSF, Generalized Fax, Email, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

The value you specify is in the form *nnnn.nnnu*

nnnn.nnn is a number that can optionally contain a decimal point.

u is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit, the default unit is pels. You cannot use a decimal point when the unit is pels.

For 240-pel resolution printers, valid values are:

16 - 8160 pels
0.065 - 34 inches
1.641 - millimeters
863.628

For 300-pel resolution printers, valid values are:

16 - 10200 pels
0.052 - 34 inches
1.313 - millimeters
863.628

For 480-pel resolution printers, valid values are:

16 - 16320 pels
0.065 - 34 inches
1.641 - millimeters
863.628

For 600-pel resolution printers, valid values are:

16 - 20400 pels
0.052 - 34 inches
1.313 - 863.628 millimeters

Default Value

No default value

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PCL, PDF, PostScript, and TIFF documents.
- If a text margin is already built into the file, try **image-width=8.5i** to set the width to 8.5 inches.
- This attribute is used if you do not specify a value for the **image-width** document attribute or in the file specified by the **rip-ini-file** attribute.

input-data-user-exit

Specifies the name of a program that monitors input data to this actual destination. For example, if a certain document format is printed on special media, the input data exit program can issue a message requesting the operator to change the paper whenever a job in that format is submitted.

GUI label

Input data exit

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 255 characters.

Default Value

No default value

Usage Guidelines

You can use the sample input data exit program supplied:

- With InfoPrint:
 - For AIX, **/usr/lpp/psf/bin/ainuxind** (source **/usr/lpp/psf/exits/ainuxind.c**)

- For Windows, *install_path*\bin\ainuxind (source *install_path*\psf\exits\ainuxind.c or *install_path*\psf\exits\ainuexit.h), where *install_path* indicates the path where you installed InfoPrint Manager for Windows
- Write your own

For more information about user-exit programs for InfoPrint Manager for AIX, visit the appropriate site from the InfoPrint Solutions Company Web site:
<http://www.infoprint.com>.

input-trays-medium

Identifies which input medium is in which printer tray.

GUI label

Media ready

DSS

AIX

Type

Resettable, multi-valued, complex

Syntax

tray-identification:medium-identifier

Separate each pair of values with a colon, for example:

tray-1:A4-colored

Components

- **tray-identification**
 - Identifies the type of input tray.
 - *GUI label*
Input tray
 - *Type*
Single-valued
 - *Allowed Values*

You can enter one of these fixed values:

auto-envelope-feed	top
automatic-tray	tray-1
auxiliary-envelope	tray-2
auxiliary-paper	tray-3
bottom	tray-4
continuous-form-feed	tray-5
current-selected-tray	tray-6
envelope	tray-7
high-capacity-feeder	tray-8
large-capacity	tray-9
manual	tray-10
manual-envelope-feed	capacity-2000-sheet
middle	

– *Default Value*

If Simple Network Management Protocol (SNMP) communication is active, InfoPrint queries the printer device and sets the value according to the response; otherwise **tray-1**. However, if you specify a value for **input-tray**, you deactivate the SNMP default.

• **medium-name**

Identifies the medium in the input tray.

– *GUI label*

Media ready

– *Type*

Single-valued

– *Allowed Values*

You can enter a text string up to 255 characters long that contains the name of the medium or one of the fixed values of the **medium-identifier** attributes of the default media. See the medium attribute **medium-identifier** for a list of these values.

– *Default Value*

If Simple Network Management Protocol (SNMP) communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise **letter**. However, if you specify a value for **medium-identifier**, you deactivate the SNMP default.

Usage Guidelines

- InfoPrint automatically sets the values for the **input-trays-supported** and **media-ready** attributes from the values of this attribute.
- InfoPrint verifies that the values of the *medium-name* component of this attribute are values of the **media-supported** attribute.
- The InfoPrint Manager server can automatically set the values for **input-trays-medium** for an SNMP printer **only** if you do **not** explicitly set the attribute when creating or modifying the actual destination or if you reset the attribute to the InfoPrint Manager default.

Note: For media, the automatic default only detects the **size** of the medium. If you have different media that are the same size (for example, three different letter-size preprinted forms) and you need to differentiate between them in the attributes, you must explicitly set the attributes instead of using the automatic default.

input-trays-supported

Identifies the types of input trays, such as top or envelope, supported on the printer device.

GUI label

Input trays allowed

DSS

AIX, BSD, PSF, Generalized Fax, Email

Type

Non-settable (AIX and PSF) or resettable (BSD), multi-valued

Allowed Values

- AIX** InfoPrint sets the values for this attribute based on the values of the **input-trays-medium** attribute.
- BSD** You can enter any names that describe input trays.
- PSF** InfoPrint sets the values for this attribute based on the values of the **psf-tray-characteristics** attribute.

Default Values

- AIX** The value of the **input-trays-medium** attribute
- BSD** No default value
- PSF** The value of the **psf-tray-characteristics** attribute

Usage Guidelines

- InfoPrint uses this attribute for job validation and scheduling:
 - AIX** InfoPrint compares the document attribute **default-input-tray** to this attribute.
 - BSD** This attribute is for information only.
 - PSF** InfoPrint compares the document attribute **default-input-tray** or **input-tray-select** to this attribute.
- You can use this attribute to restrict use of this actual destination.

interrupt-message-page-enabled

Indicates whether InfoPrint Manager is running with Interrupt Message Page (IMP) on or off.

GUI label

Interrupt message page enabled

DSS

PSF TCP/IP

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When the value of **interrupt-message-page-enabled** is **false**, InfoPrint will not print interrupt message pages.
- When the value of **interrupt-message-page-enabled** is **true**, InfoPrint prints interrupt message pages.

interrupt-message-page-form-definition

Identifies the form definition to use when generating interrupt message pages.

GUI label

Interrupt message page form definition

DSS

PSF TCP/IP

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to eight characters long that contains the name of the form definition to use when printing interrupt message pages.

Default Value

F1MG0110

Usage Guidelines

The InfoPrint Manager Interrupt Message Page support includes a form definition (F1MGIMP) that is similar to the default message page form definition (F1MG0110), but F1MGIMP enables offset-stacking.

interrupt-message-page-edge-marks

Indicates whether InfoPrint Manager marks the page edges when running with Interrupt Message Page (IMP) on.

GUI label

Interrupt message page edge marks

DSS

PSF TCP/IP

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When the value of **interrupt-message-page-enabled** is **false**, InfoPrint will not print edge marks on the interrupt message pages.
- When the value of **interrupt-message-page-enabled** is **true**, InfoPrint prints edge marks on the interrupt message pages.

intervention-timer

Specifies the maximum amount of time, in seconds, that InfoPrint waits before it treats an intervention-required condition at the output device as a permanent error.

GUI label

Intervention timer (sec)

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter a value of 1 through 9999. The unit is seconds.

Default Value

9999

Usage Guidelines

A value of 9999 specifies that a permanent error condition can never occur.

job-attributes-supported

Identifies the job attributes that this actual destination supports. InfoPrint checks the values listed with this attribute and merges them with the values supported by the server (found on the **job-attributes-supported** server attribute) during validation to allow jobs with these attributes to continue on to this actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets the values that list the job attributes that this actual destination supports.

Note: This list includes only job attributes that directly affect the actual destination. Jobs with attributes that affect the server, for example, **job-retention-period**, can be printed even though those attributes are not on this list.

Default Values

This list lists the **job-attributes-supported** by DSS that are merged with the **job-attributes-supported** by the server:

AIX auxiliary-sheet-selection, job-batch, job-start-wait

BSD or Metacode
job-batch, job-start-wait

PSF auxiliary-sheet-selection, delete-segment-list, formatted-job-ticket-content, job-batch, job-finishing, job-rip-action, job-start-wait, media-sheets-completed, optimize-for-multiple-copies, segment-list-file-name

Email delete-segment-list, formatted-job-ticket-content, job-batch, job-rip-action, job-ripped-by-server, job-start-wait, media-sheets-completed, segment-list-file-name

Generalized Fax

delete-segment-list, formatted-job-ticket-content, job-rip-action, job-scheduling, job-start-wait, media-sheets-completed, segment-list-file-name

InfoPrint 2000

auxiliary-sheet-selection, delete-segment-list, formatted-job-ticket-content, job-finishings, job-rip-action, job-ripped-by-server, media-sheets-completed, segment-list-file-name

Passthrough

auxiliary-sheet-selection, job-batch, job-start-wait

IPP

auxiliary-sheet-selection, job-batch, job-start-wait,

job-batches-ready

Specifies which job-batch values can currently print to this actual destination.

GUI label

Job batches ready

DSS

All

Type

Resettable, multi-valued

Allowed Values

You can enter a text string up to 4095 characters long, for each value, that contains the job-batch name.

Default Value

No default values.

Usage Guidelines

InfoPrint compares the value of the job attribute **job-batch** to this attribute during job scheduling.

job-finishings-supported

Identifies the job finishing options that this actual destination supports.

GUI label

Finishing options allowed

DSS

PSF, InfoPrint 2000,

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values for the PSF-supported printers, that is printers that use the PSF DSS except for PSF Other-driver and PSF Command attachment types:

- **edge-stitch**
- **edge-stitch-2**
- **edge-stitch-3**
- **edge-stitch-bottom**
- **edge-stitch-left**
- **edge-stitch-right**
- **edge-stitch-top**
- **punch-2**
- **punch-3**
- **punch-4**
- **saddle-fold**
- **saddle-stitch**
- **staple-bottom-left**
- **staple-bottom-right**
- **staple-top-left**
- **staple-top-right**

You can enter any of these fixed values for printers that use the InfoPrint 2000 DSS:

- **booklet-stitch-and-fold**
- **booklet-stitch-fold-and-trim**
- **edge-stitch-2**
- **staple-bottom-left**
- **staple-top-left**

Default Values

InfoPrint 2000 DSS

staple-top-left, staple-bottom-left, and edge-stitch-2

InfoPrint 70 with PSF DSS

staple-top-left, staple-bottom-left, staple-top-right, and edge-stitch

InfoPrint 2085 and InfoPrint 2105 with PSF DSS

staple-top-left, staple-bottom-left, staple-top-right, edge-stitch, and edge-stitch-left

InfoPrint 2065ES, InfoPrint 2075ES, InfoPrint 2090ES, and InfoPrint 2015ES with PSF DSS

staple-top-left, staple-bottom-left, staple-top-right, edge-stitch, edge-stitch-left, and saddle-stitch

InfoPrint 2190, InfoPrint 2210, and InfoPrint 2235 printers
staple-top-left, staple-bottom-left, edge-stitch, edge-stitch-left, and
saddle-stitch

Usage Guidelines

- InfoPrint compares the job attribute **job-finishing** to this attribute for validation and scheduling.
- You can use this attribute to restrict the use of finishing options for an actual destination.
- The **job-finishings-supported** attribute is not applicable to UP³I devices. For information about UP³I devices, see the *InfoPrint Page Printer Formatting Aid: User's Guide*.
- The presence of a finishing value on this attribute does not guarantee that the finishing option will work; the appropriate finishing hardware must be installed to support the finishing value.

job-result-set-delivery-methods-supported

Identifies the job result-set delivery methods supported by this actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

Fixed Value	DSS
sapconnect-fax	sapconnect
pickup	All other DSSs

Default Values

sapconnect DSS
sapconnect-fax

All other DSSs
pickup

job-retry-count-limit

Indicates the number of times that InfoPrint should try to submit a job to this device after an initial failure.

GUI label

Number of times to retry jobs

DSS

AIX, BSD, PSF, Generalized Fax, Passthrough, IPP

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

0

Usage Guidelines

- Values greater than 0 are useful when poor network line quality causes temporary loss of communication between this actual destination and the backend program. A second or subsequent attempt to submit the job can succeed if communication can be reestablished.
- If the job cannot be submitted in the specified number of attempts, InfoPrint disables the destination and places it in the **needs-key-operator** state.
- The **job-retry-interval** actual destination attribute indicates the number of seconds between attempts.
- If the value of this attribute is 0, the **job-retry-interval** attribute is ignored.
- If the value of the **job-retry-interval** attribute is 0, this attribute is ignored.
- On InfoPrint Manager for Windows, the **job-retry-count-limit** should not be set to a large value if the **job-retry-interval** is set to a small value because several processes start and terminate on each retry. After a period of time, such retries could result in the InfoPrint Manager server stopping or the Windows operating system becoming unresponsive.

job-retry-interval

Indicates the number of seconds that InfoPrint should wait between attempts to submit a job to this device.

GUI label

Interval to retry jobs (sec)

DSS

AIX, BSD, Generalized Fax, PSF, Passthrough, IPP

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

0

Usage Guidelines

- If the job cannot be submitted in the specified number of attempts, InfoPrint disables the destination and places it in the **needs-key-operator** state.
- The **job-retry-count-limit** actual destination attribute indicates the number of attempts after an initial failure.
- If the value of this attribute is **0**, the **job-retry-count-limit** attribute is ignored.
- If the value of the **job-retry-count-limit** attribute is **0**, this attribute is ignored.
- On InfoPrint Manager for Windows, if the **job-retry-interval** is set to a small value, the **job-retry-count-limit** should not be set to a large value because several processes start and terminate on each retry. After a period of time, such retries could result in the InfoPrint Manager server stopping or the Windows operating system becoming unresponsive.

job-rip-actions-supported

Indicates whether this actual destination supports converting a PostScript job to raster image patterns and holding the job, printing the job, or neither.

GUI label

RIP options allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **rip-and-hold**
- **rip-and-hold-ignore-ready**
- **rip-and-print**
- **rip-and-print-ignore-ready**
- **rip-only**
- **rip-only-ignore-ready**

Default Value

rip-and-hold, **rip-and-hold-ignore-ready**, **rip-and-print**, **rip-and-print-ignore-ready**, **rip-only**, **rip-only-ignore-ready**

Usage Guidelines

InfoPrint compares the job attribute **job-rip-action** to this attribute for validation and scheduling.

job-size-range-ready

Defines the range of job sizes in bytes (octets) that this actual destination can accept and print.

GUI label

Size ready (Bytes)

DSS

All

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Separate the values with a colon, for example:

1025:1000000

You can omit either value, for example:

1025:
:1000000

Components

- **lower-limit**

Identifies the lower limit value of the job size. The unit value is octets (bytes).

- *GUI label*

Lower limit

- *Type*

Single-valued

- *Allowed Values*

You can enter an integer from 0 to 9223372036854775800. The lower limit must be less than or equal to the upper limit.

- *Default Value*

0

- **upper-limit**

Identifies the upper limit value of the job size. The unit value is octets (bytes).

- *GUI label*

Upper limit

- *Type*

Single-valued

- *Allowed Values*

You can enter an integer from 0 to 9223372036854775800. The upper limit must be greater than or equal to the lower limit.

- *Default Value*

9223372036854775800

Usage Guidelines

- You can use this attribute to restrict jobs sent to this actual destination according to the capacity of the output device or your policy for output device use.
- You must set the range for this attribute in the range of the **job-size-range-supported** value.
- InfoPrint compares the job attribute **total-job-octets** to this attribute for scheduling.

job-size-range-supported

Defines the range of job sizes in bytes (octets) that this actual destination can accept.

GUI label

Size allowed (Bytes)

DSS

All

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Separate the values with a colon, for example:

1025:1000000

You can omit either value, for example:

1025:
:1000000

Components

- **lower-limit**

Identifies the lower limit value of the job size. The unit value is octets (bytes).

 - *GUI label*
Lower limit
 - *Type*
Single-valued
 - *Allowed Values*
You can enter an integer from 0 to 9223372036854775800. The lower limit must be less than or equal to the upper limit.
 - *Default Value*
0
- **upper-limit**

Identifies the upper limit value of the job size. The unit value is octets (bytes).

- *GUI label*
Upper limit
- *Type*
Single-valued
- *Allowed Values*
You can enter an integer from 0 to 9223372036854775800. The upper limit must be greater than or equal to the lower limit.
- *Default Value*
9223372036854775800

Usage Guidelines

- You can use this attribute to restrict jobs sent to this actual destination according to the capacity of the output device or your policy for output device use.
- You must set the range for this attribute equal to or greater than the range you specify for the **job-size-range-ready** attribute value.
- InfoPrint compares the job attribute **total-job-octets** to this attribute for validation and scheduling.

job-start-wait-supported

Indicates whether job submitters are allowed to set the **job-start-wait** job attribute to pause the actual destination just before the job prints.

GUI label

Wait to start job allowed

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

The default is **true**.

Usage Guidelines

InfoPrint compares the job attribute **job-start-wait** to this attribute for validation and scheduling.

jog-between-jobs

Indicates whether to turn off jogging between jobs.

GUI label

Jog between jobs

DSS

InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- A value of **false** turns off jogging between jobs, even if the bin supports jogging.
- Jobs going to the Booklet-maker and Top output bins on the InfoPrint 2000 cannot jog, regardless of the value specified for the **jog-between-jobs** attribute.
- Jobs going to the Stacker and the Stapler bins on the InfoPrint 2000 jog according to the value specified for the **jog-between-jobs** attribute: **true** specifies jogging between jobs and **false** specifies no jogging between jobs.

large-file-enabled

Indicates whether you have enabled your system to support large files (files larger than 2 GB). Setting this attribute automatically sets the **file-size-range-supported** attribute.

GUI label

Large file enabled

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- The **large-file-enabled** actual destination attribute is provided as an easy way to set the **file-size-range-supported** actual destination attribute.
- You cannot specify both **large-file-enabled** and **file-size-range-supported**.
- While the **large-file-enabled** actual destination attribute appears on all DSSs, a value of **true** is only supported on the PSF DSS.

list-of-managers

Identifies the people responsible for the configuration of this actual destination and maintenance of the output device associated with this actual destination.

GUI label

Managers

DSS

All

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **managers**.

Allowed Values

You can enter a text string up to 255 characters long, for each value, that contains such things as the name, user ID, office number, or telephone number of the person responsible for this actual destination and the output device associated with it.

Default Value

No default value

Usage Guidelines

This attribute is useful if a user needs to contact someone to report a problem or to request a change.

locations

See **destination-locations**.

log-accounting-data

Defines whether the accounting log is active for this actual destination. If you set the value to the default by using the == operator, the value of the server attribute **log-accounting-data** is used.

GUI label

Log accounting data

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Note: The accounting logs are stored in an InfoPrint server directory called **accounting.logs**.

Default Value

No default value

Usage Guidelines

You can use this attribute to activate or deactivate the accounting log for this actual destination.

Note: The accounting log contains these job attributes and values for each job processed for this actual destination:

- **actual destination name** (up to 255 characters)
- **job owner** (up to 255 characters)
- **global job-id** without *ServerName*
- **submission-time** (GMT format)

- **submission-time** (date in server's displayable locale and time zone)
- **submission-time** (time in server's displayable locale and time zone)
- **completion-time** (GMT format)
- **completion-time** (date in server's displayable locale and time zone)
- **completion-time** (time in server's displayable locale and time zone)
- **pages-completed**
- **octets-completed**
- **data stream** (first document only)
- **job name** (up to 255 characters)

logged-onto-sap

Indicates whether the actual destination is currently logged on the SAP system to which it is delivering jobs, such as faxes.

GUI label

Logged onto SAP

DSS

sapconnect

Type

Non-settable, multi-valued

Allowed Values

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Values

False

logical-destinations-assigned

Indicates the logical destination through which submissions to this actual destination are forwarded.

GUI label

Route submitted jobs to

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 255 characters that contains the name of the logical destination.

Default Value

No default value

Usage Guidelines

When a job submission is received at an actual destination object with the **logical-destinations-assigned** set, the **actual-destinations-requested** attribute is set to the name of the actual destination that received the request, and then the job is submitted through the specified **logical-destinations-assigned**.

If **logical-destinations-assigned** is **not** set in the actual destination, the actual destination does not accept direct job submission requests, which are rejected with an unsupported error message.

managers

See **list-of-managers**.

maximum-concurrent-jobs

Defines an upper limit for the number of jobs that this actual destination can process at a time.

GUI label

Maximum concurrent jobs

DSS

All

Type

Resettable, single-valued

Allowed Values

AIX You can enter an integer from 1 through 9.

BSD You can enter an integer from 1 through 9.

InfoPrint 2000

You can enter an integer from 1 through 99.

Metacode

You can enter an integer from 1 through 9.

PSF You can enter an integer from 1 through 99.

Note: When you are using a PSF other-driver attached actual destination, the maximum value is 9.

Email You can enter an integer from 1 through 99.

Generalized Fax

You can enter an integer from 1 through 99.

Passthrough

You can enter an integer from 1 through 9.

IPP You can enter an integer from 1 through 9.

SAPconnect

You can enter an integer from 1 through 9.

Default Value

AIX 2

BSD 1

InfoPrint 2000

12

Metacode

2

PSF other-driver attached actual destinations

2

PSF command-attached actual destinations

1

Other PSF actual destinations

4

Email 12

Generalized Fax

12

Passthrough

1

IPP 1

SAPconnect

1

Usage Guidelines

- You can use this attribute to tune your InfoPrint system to efficiently use your destination resources.
- When you are using two interoperating InfoPrint Transform Manager servers with InfoPrint Manager, set **maximum-concurrent-jobs** to **8** to benefit from load balancing between the InfoPrint Transform Manager servers. This number needs to be increased as the number of interoperating InfoPrint Transform Manager servers increases.

maximum-copies-supported

Indicates the number of document copies, in a single job, that this actual destination allows.

GUI label

Maximum copies allowed

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647.

Default Value

2147483647

Usage Guidelines

- You can use this attribute to restrict jobs sent to this actual destination according to the capacity of the output device or your policy for output device use.
- InfoPrint compares the document attribute **copy-count** to this attribute for scheduling.

maximum-fonts-to-keep

Specifies the maximum number of fonts to keep in the memory of the printer device between jobs.

GUI label

Maximum fonts to keep

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 999.

Default Value

10

Usage Guidelines

- Fonts are a single size and typeface in a particular type family, including letters, numerals, punctuation marks, special characters, and ligatures.

- If you specify that the printer device can store fonts in its memory between jobs, the printer will not have to download the same fonts for the next job. However, this requires additional printer memory.

maximum-overlays-to-keep

Specifies the maximum number of overlays to keep in the memory of the printer device between jobs.

GUI label

Maximum overlays to keep

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 999.

Default Value

0

Usage Guidelines

- Overlays are collections of predefined data such as lines, shading, test boxes, and logos that the printer device can merge with variable data on a page or a form.
- If you specify that the printer device can store overlays in its memory between jobs, the printer will not have to download the same overlays for the next job. However, this requires additional printer memory.

maximum-presentation-object-containers-to-keep

Specifies the maximum number of presentation object containers (called data object resources in the IPDS Reference) to keep in the memory of the printer device between jobs.

GUI label

Maximum presentation object containers to keep

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 32511.

Default Value

100

Usage Guidelines

- For accounting purposes, InfoPrint Manager treats color management resources (CMRs) as data object resources, so CMRs are counted as part of the **maximum-presentation-object-containers-to-keep**.

maximum-segments-to-keep

Specifies the maximum number of page segments to keep in the memory of the printer device between jobs.

GUI label

Maximum segments to keep

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 999.

Default Value

0

Usage Guidelines

- Page segments contain text and images that the printer device can include at any addressable point on a page or an electronic overlay.
- If you specify that the printer device can store page segments in its memory between jobs, the printer will not have to download the same page segments for the next job. However, this requires additional printer memory.

media-ready

Identifies the media now loaded in the printer device.

GUI label

Media ready

DSS

AIX, BSD, Generalized Fax, PSF, InfoPrint 2000, IPP, Metacode, Passthrough

Type

Non-settable (AIX, Generalized Fax, and PSF) or resettable (BSD, IPP, Metacode, and Passthrough), multi-valued

Allowed Values

AIX InfoPrint sets the values for this attribute based on the values of the **input-trays-medium** attribute.

BSD You can enter any values of the **media-supported** attribute.

PSF, Generalized Fax, and InfoPrint 2000

InfoPrint sets the values for this attribute based on the values of the **psf-tray-characteristics** attribute.

IPP and Passthrough

You can enter any values of the **media-supported** attribute.

Metacode

You can enter **letter**, **legal**, or **A4**.

Default Values

For AIX, BSD, PSF actual destinations, Passthrough, and IPP, if SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise:

AIX The default comes from the values of the **input-trays-medium** attribute.

BSD, Metacode

No default value

PSF, InfoPrint 2000

The default comes from the values of the **psf-tray-characteristics** attribute.

Generalized Fax

letter, A4

IPP The default value comes from IPP.

Passthrough

There is no default.

Usage Guidelines

- InfoPrint restricts the possible values for this attribute to the values currently specified for the **media-supported** attribute.
- InfoPrint compares the document attribute **default-medium** to this attribute for job scheduling.
- The InfoPrint Manager server can automatically set the value for **media-ready** based on the **input-trays-medium** or **psf-tray-characteristics** actual destination attribute for an SNMP printer **only** if you do **not** explicitly set the attribute when creating or modifying the actual destination.

Note: For media, the automatic default only detects the **size** of the medium. If you have different media that are the same size (for example, three different

letter-size preprinted forms) and you need to differentiate between them in the attributes, you must explicitly set the attributes instead of using the automatic default.

media-supported

Identifies the types of media that the actual destination supports.

GUI label

Media allowed

DSS

AIX, BSD, Generalized Fax, PSF, InfoPrint 2000, IPP, Passthrough

Type

Resettable, multi-valued

Allowed Values

You can enter a text string that contains the names of the media. These can be:

- The medium identifiers of medium objects created by the **pdcrmed** utility. For these fixed values, see “medium-identifier” on page 904.
- The medium identifiers of medium objects you created yourself.
- For PSF actual destinations, IPP printers, Passthrough printers, and BSD actual destinations, any names that describe the media, even if no medium objects with those names exist.
- For InfoPrint 2000 actual destinations, IPP printers, and Passthrough printers, medium objects must exist for all the names that you created for the InfoPrint 2000 printers.

Default Value

For AIX, BSD, PSF, IPP, and Passthrough actual destinations, if SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise:

AIX **letter**

BSD No default value

Generalized Fax
letter, A4

PSF, InfoPrint 2000 (when created with the Standard InfoPrint Manager Administration GUI and command line)

Command-attached actual destinations
letter

other-driver attached actual destinations
letter

InfoPrint2000AFP (when created with the Standard or Basic InfoPrint Manager Administration GUI)

letter, legal, a3, a4, tabloid, ledger, 8x10.5, letter-tab, manual, a4-tab, legal-tab

InfoPrint 70 (when created with the Standard or Basic InfoPrint Manager Administration GUI)

letter, legal, a3, a4, a5, jis-b4-white, jis-b5-white, ledger, 12x18, 8.5x12.4, 9x11, folio, executive, statement

Other PSF models (when created with the Standard or Basic InfoPrint Manager Administration GUI)

letter, legal, a3, a4, jis-b4-white, jis-b5-white, tabloid, ledger

Other actual destinations

No default values

PSF, InfoPrint 2000 (when created with the Basic InfoPrint Manager Administration GUI)

All allowed fixed values

IPP With Internet Printing Protocol (IPP) printers, the default comes from IPP.

Passthrough

There is no default.

Usage Guidelines

- InfoPrint uses this attribute for job validation:

AIX InfoPrint compares the document attribute **default-medium** to this attribute for job validation and scheduling.

BSD This attribute is for information only.

Generalized Fax

InfoPrint compares the document attribute **default-medium** to this attribute for job validation and scheduling.

PSF InfoPrint compares the document attribute **default-medium** or **page-media-select** to this attribute for job validation and scheduling.

- For AIX actual destinations, InfoPrint verifies that the values of the *medium-identifier* component of the **input-trays-medium** attribute are values of this attribute.
- For PSF and InfoPrint 2000 actual destinations, InfoPrint verifies that the values of the *medium-loaded* component of the **psf-tray-characteristics** attribute are values of this attribute.
- The actual destination does not automatically update this attribute. When you create a medium object, you must add its medium identifier to each actual destination that supports it.
- You can use this attribute to restrict use of this actual destination.
- The InfoPrint Manager server can automatically set the value for **media-supported** based on the **input-trays-medium** or **psf-tray-characteristics** actual destination attribute for an SNMP printer **only** if you do **not** explicitly set the attribute when creating or modifying the actual destination or if you reset the attribute to the InfoPrint Manager default.

Note: For media, the automatic default only detects the **size** of the medium. If you have different media that are the same size (for example, three different

letter-size preprinted forms) and you need to differentiate between them in the attributes, you must explicitly set the attributes instead of using the automatic default.

message

Provides information associated with this actual destination.

GUI label

Message

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that contains information about this actual destination.

Default Value

No default value

Usage Guidelines

Use of this descriptive attribute is optional.

message-font-type

Identifies the font type that the printer device uses to print the message page.

GUI label

Message page font type

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

- **normal**
- **condensed**

Default Value

normal

message-form-definition

Identifies the AFP form definition that the printer device uses to process the message page.

GUI label

Message page form definition

DSS

PSF

Type

Resettable, single-valued

Allowed Values

A text string up to 255 characters long that contains the form definition ID.

Default Value

F1MG0110

mid-release-timer

Identifies the length of time without additional print requests that the device will wait before suspending the IPDS session.

GUI label

MID Release Timer

DSS

PSF TCP/IP

Type

Resettable, single-valued

Input Synonyms

None

Allowed Values

You can enter an integer from 1 through 9999. The unit value is seconds.

Default Values

15

Usage Guidelines

- If you are using the **destination-release-timer** attribute to control sharing of the print mechanism, you can turn off the **destination-release-timer** function because the **mid-release-timer** attribute can provide the same function without loss of connectivity.
- If you are only using the **destination-release-timer** attribute to share the device with other IPDS hosts, do not use the **mid-release-timer** attribute because other IPDS hosts will not be allowed to connect while the physical connection still exists.
- To share the device with both another IPDS host and non-IPDS data streams, follow these guidelines to configure the timers so that they do not conflict with each other:
 - Always set **mid-release-timer** attribute to be lower than the value of the **destination-release-timer** attribute; otherwise the **mid-release-timer** attribute will never be activated.
 - Make sure that the difference in timing between the **mid-release-timer** attribute and the **destination-release-timer** attribute is adequate, so that the device will return control of the print mechanism before the IPDS connection is released.

Note: The clocking of the **destination-release-timer** function will stop if the PSF host receives subsequent print requests.

mid-support-enabled

Specifies whether the Manage IPDS Dialog (MID) function (if supported by the device) is enabled for a specific actual destination.

GUI label

Enable MID Support

DSS

PSF TCP/IP

Type

Resettable, single-valued

Input Synonyms

None

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes

<i>Fixed Value</i>	<i>Input Synonym</i>
false	no

Default Values

false

Usage Guidelines

- The **MID** function provides the print sharing method of a device with non-IPDS data streams.
- When the **MID** function is enabled, the printer can request that the PSF host releases the control of the print engine without dropping the TCP/IP connection. In this situation, the print engine can print data streams other than IPDS when the IPDS activity is minimal.
- If you release the print mechanism, the IPDS host might stop processing subsequent print requests until the print mechanism control is returned. And the time when the control is returned depends on the device.

model

See **destination-model**.

non-process-runout-timer

Designates the amount of time, in seconds, that a continuous-forms printer device waits for the next job before it runs the forms from the print transfer station to the stacker after the last page of a job prints.

GUI label

Non-process runout timer (sec)

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 9999. The unit is seconds.

Default Value

60

Usage Guidelines

If you enter a value of 0, InfoPrint does not allow the timer to expire.

notification-profile

Designates which users InfoPrint notifies of specified events related to this actual destination, and how InfoPrint notifies them.

GUI label

Notification profile

DSS

All

Type

Resettable, multi-valued, complex

Syntax

```
-x "notification-profile={event-identifiers=event ...  
  delivery-address=name@node delivery-method=value  
  event-comment='some text' locale=locale}"
```

You can omit any of these components, for example:

```
-x "notification-profile={event-identifiers=class-actual-destination-status  
  class-warning delivery-address=jeff@ttank  
  event-comment='Its still going' locale=En_US.IBM-850}"
```

Components

- **event-identifiers**

Specifies the events for which the user receives messages.

- *GUI label*

Events

- *Type*

Multi-valued

- *Allowed Values*

You can enter any of the values listed for the server attribute **events-supported**.

- *Default Values*

**object-deleted, object-cleaned, printer-needs-administrator,
printer-needs-attention, printer-needs-operator, printer-timed-out**

- **delivery-address**

Provides the address of the person who receives the event messages or the directory location and file name where InfoPrint stores the message.

- *GUI label*

Address

- *Type*

Single-valued

- *Allowed Values*

You can enter a text string up to 255 characters long that contains the user name and node or the directory and file name.

- *Default Value*
The login ID of the user who created this actual destination.
- *Usage Guidelines*
You must specify a value for **delivery-address** if you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for the **delivery-method** component.

- **delivery-method**

Specifies how the user or file receives event messages.

- *GUI label*
Method
- *Type*
Single-valued
- *Allowed Values*

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
--------------------	----------------------

electronic-mail	e-mail, email
------------------------	----------------------

file

file-add-to

message

exit

none

wireless

- *Default Value*
message
- *Usage Guidelines*
 - If you specify a value of **file**, **file-add-to**, **exit**, or **wireless**, you must specify a value for the **delivery-address** component.
 - When you specify a value of **file**, the file is used for the life of the object. If you create another object with the same file name, the file gets replaced.
 - When you specify a value of **file-add-to**, several objects write notifications to the same file, and it is never erased or recreated.

- **event-comment**

Supplies textual information that InfoPrint prepends to the event message.

- *GUI label*
Comment
- *Type*
Single-valued
- *Allowed Values*

You can enter a text string up to 4095 characters long that contains the comment.

- *Default Value*
No default value

- **locale**

Defines the language and code page of notification messages.

- *Type*

Single-valued

- *Allowed Values*

You can enter the name of any locale for which the InfoPrint messages in the corresponding language are installed.

- *Default Value*

The locale of the person who created this actual destination.

notify-operator

Identifies people who are to receive the messages specified by the job attributes **job-start-message** and **job-end-message**.

GUI label

Operators to notify

DSS

All

Type

Resettable, multi-valued, complex

Input Synonym

You can use the synonym **operators**.

Syntax

delivery-method:delivery-address

Separate each pair of values with a colon, for example:

message:op2@phyptr1

Components

- **delivery-method**

Specifies how the person receives the messages.

- *GUI label*

Method

- *Type*

Single-valued

- *Allowed Values*

You can enter one of these fixed values:

Fixed Value *Input Synonym*

electronic-mail **e-mail, email**

exit

message

none

Fixed Value Input Synonym

wireless

– *Default Value*

message

– *Usage Guidelines*

- If you specify a value of **wireless** for the **delivery-method** component, you must specify a value for the **delivery-address** component of the **notify-operator** attribute.
- If you specify a value of **exit** for the delivery-method component, you must specify the name of the exit program to execute in the **delivery-address** component of the **notify-operator** attribute.

- **delivery-address**

Provides the address of the person to receive the messages.

– *GUI label*

Address

– *Type*

Single-valued

– *Allowed Values*

Enter a login ID and node.

– *Default Value*

The login ID of the person who created this actual destination.

– *Usage Guidelines*

- If you specify a value of **wireless** for the **delivery-method** component, you must specify a value for the **delivery-address** component of the **notify-operator** attribute.
- If you specify a value of **exit** for the delivery-method component, you must specify the name of the exit program to execute in the **delivery-address** component of the **notify-operator** attribute.

number-up-supported

Specifies the number of pages that this actual destination can print on a single side of the paper.

GUI label

Number up allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
imposition-simple-1-up	1up
imposition-simple-2-up	2up
imposition-simple-3-up	3up
imposition-simple-4-up	4up
generic-none	

Default Values

imposition-simple-1-up, imposition-simple-2-up, imposition-simple-3-up, imposition-simple-4-up, generic-none

Usage Guidelines

- The value **generic-none** applies only to the actual destination. You cannot request this value with the document attribute **number-up**.
When the values for **number-up-supported** include **generic-none**, the actual destination accepts documents without a value for the **number-up** attribute. The actual destination also accepts documents without a value for the **number-up** attribute when there are no values for **number-up-supported**.
- InfoPrint compares the document attribute **number-up** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

object-class

Identifies the object class to which this object belongs.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **destination**.

Default Value

destination

offset-stacking-available

Indicates whether PSF command-attached or other-driver attached actual destinations support offsetting jobs in the output stack.

GUI label

Allow offset stacking

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- This attribute applies only to PSF command-attached and other-driver attached actual destinations. Other actual destinations ignore this attribute.
- Offset stacking occurs only if the form definition for the job specifies offset stacking.
- PPDS and PCL4 data streams do not support the offset stacking option; therefore, this attribute has no effect on destinations using those data streams.
- This attribute is not used for job validation or scheduling.

operators

See **notify-operator**.

optimize-for-multiple-copies

Used with the **optimize-for-multiple-copies** job attribute to indicate whether the printer device should save pages to print multiple copies of the job faster.

GUI label

Optimize for copies

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true For these models created using the basic InfoPrint Manager Administration GUI available with the InfoPrint Manager: Print-On-Demand Feature:

destination-model=InfoPrintColor130Plus
destination-model=InfoPrint4000
destination-model=InfoPrint4000-ID5-ID6
destination-model=InfoPrint4000-IR3-IR4
destination-model=InfoPrint4100-HD1-HD2
destination-model=InfoPrint4100-HD3-HD4
destination-model=InfoPrint4100-HD5-HD6
destination-model=InfoPrint4100-MD1-MD2
destination-model=InfoPrint4100-PD1-PD2
destination-model=InfoPrint5000-AS1
destination-model=InfoPrint5000-AD1-AD2

false All other actual destinations

Usage Guidelines

- Do not use this attribute for any MO:DCA file that the **Include Saved Page** structured field is specified.
- Do not use this attribute for any document that you created using the **output-format** attribute.
- This attribute is used in combination with the **optimize-for-multiple-copies** job attribute:

<i>Job Attribute</i>	<i>Destination Attribute</i>	<i>Results</i>
true	true	Pages are saved
true	false	Pages are not saved
false	true	Pages are not saved
false	false	Pages are not saved
No value	true	Pages are saved
No value	false	Pages are not saved

- If the printer device cannot save pages, the job is printed and this attribute is ignored.
- When **optimize-for-multiple-copies** is set to **true** or **yes**, the job does not print until all the pages in the job are loaded on the printer.

- The **optimize-for-multiple-copies** attribute does not apply to ASCII data unless the ASCII data has been processed by ACIF.
- If **optimize-for-multiple-copies** is **true**, the **delete-segment-list** job attribute is **false**, and the actual destination is in save pages mode, the job stays on the job queue and can be reprinted at a later time. However, when a retained job is on a printer that supports color management resources (CMRs), InfoPrint Manager issues message 0424-517 Printer color setup may have changed from when pages were saved that states color fidelity on the retained job cannot be guaranteed, processing continues, and the printed output should be verified.

orientations-supported

See **content-orientations-supported**.

other-options

See **destination-pass-through**.

output-appearances-supported

Use the **halftones-supported** attribute to specify the **output-appearances-supported** attribute values. (See “halftones-supported” on page 563 for more information.) The **output-appearances-supported** attribute is supported to maintain downward compatibility, but it is not the recommended attribute for specifying the output-appearance values that this actual destination supports.

Identifies the values for the document attribute **output-appearance** that this actual destination supports.

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter a customized value or any of these fixed values:

- **standard**
- **accutone**
- **highlight-midtones**
- **dark**
- **dark2**

Default Values

standard, accutone, highlight-midtones, dark,dark2

Usage Guidelines

- InfoPrint compares the document attribute **output-appearance** to this attribute for validation and scheduling.

- You can use this attribute to restrict use of this actual destination.

output-bin

Specifies the name of the output bin to which you want InfoPrint to direct output.

GUI label

Default output bin

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains the output bin name.

Default Value

PSF No default value

InfoPrint 2000
stapler

Usage Guidelines

- The name you specify must match the name in one of the values for these attributes:
 - PSF **output-bin-numbers**
 - InfoPrint 2000 **output-bins-supported**
- InfoPrint only uses the value you specify for the **output-bin** actual destination attribute if you do not specify a value for the **output-bin** document attribute and if the form definition InfoPrint uses for the job does not specify an output bin.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- With InfoPrint 2000:
 - If a job requests stapling or some other finishing, the job goes to the appropriate finishing output bin regardless of what output bin is specified with the **output-bin** attribute.
 - If a job specifies a finishing output bin and no finishing is specified, the job is printed and sent to the top bin.

output-bin-numbers

Specifies a bin name followed by a bin number. InfoPrint uses this attribute to map names of output bins, such as top, to bin numbers that the printer device understands.

GUI label

Map output bin to number

DSS

PSF

Type

Resettable, multi-valued, complex

Syntax

bin-name:bin-number

Separate each pair of values with a colon, for example:

```
top:1  
staple:2
```

Components

- **bin-name**
 - The name of an output bin.
 - *GUI label*
Bin name
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a text string containing a bin name.
- **bin-number**
 - The number that the printer device has assigned to the output bin.
 - *GUI label*
Bin number
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a numeric value.

Default Values

If SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise no default value.

Usage Guidelines

- InfoPrint automatically updates the **output-bins-supported** actual destination attribute from the value or values that you set for this attribute.
- The InfoPrint Manager server can automatically set the value for **output-bin-numbers** for an SNMP printer **only** if you do **not** explicitly set the attribute when creating or modifying the actual destination or if you reset the attribute to the InfoPrint Manager default.

output-bins-supported

Identifies the supported output bins on the printer device.

GUI label

Output bins allowed

DSS

PSF, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

PSF InfoPrint sets this value from the values you supply for the **output-bin-numbers** actual destination attribute. If you add or delete a value from the **output-bin-numbers** attribute, InfoPrint modifies this attribute to match your change.

InfoPrint 2000
top, stapler, stacker, bookletmaker

Default Values

PSF No default value

InfoPrint 2000
top, stapler

Usage Guidelines

- InfoPrint compares the value of the **output-bin** document attribute to this attribute during job validation and scheduling.
- You can use this attribute to restrict the use of this actual destination.

output-color-management-resource

Specifies the information for the output or instruction color resource.

GUI label

Output color management resource

DSS

PSF

Type

Resettable, single-valued, per-document

Allowed Values

You can enter any valid output color resource values, including ICC Profiles, ICC Profile file names, Color Management Resource (CMR) short names, CMR file names, and CMR long names.

Default Value

No default value

Usage Guidelines

- This attribute is used to support color resource management.
- Use this attribute together with the **color-rendering-intent**, **destination-model**, and **resource-context** attributes.
- In normal processing, specify an **input-color-management-resources** attribute along with an associated **output-color-management-resources** attribute. If one is specified without the other, there will not be any error and InfoPrint will use the internal default values as the not specified attribute values at the transform level.
- If you do not specify the **input-color-management-resources** document/default document attribute and the **output-color-management-resource** attribute, and you specify the **output-color-management-resource-tag** document/default document attribute, InfoPrint will ignore the **output-color-management-resource-tag** attribute.
- If you specify the **output-color-management-resource** as an ICC Profile instead of an AFP CMR, InfoPrint will ignore the **output-color-management-resource-tag** and **output-color-management-resource-inline** attributes at the transform level.

output-data-user-exit

Specifies the name of a program that monitors output data from this actual destination. For example, the output data exit program can print a report at the end of a job listing the start and end time and the number of fonts, page segments, and overlays in the job so that you can track output device performance.

GUI label

Output data exit

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 255 characters.

Default Value

No default value

Usage Guidelines

You can use the sample output data exit program supplied:

- With InfoPrint:
 - With AIX, `/usr/lpp/psf/bin/ainuxout` (source `/usr/lpp/psf/exits/ainuxout.c`)
 - With Windows, `install_path\bin\ainuxout` (source `install_path\usr\lpp\psf\exits\ainuxout.c`), where `install_path` indicates the path where you installed InfoPrint Manager for Windows
- Write your own

For more information about user-exit programs for InfoPrint Manager for AIX, visit the appropriate site from the InfoPrint Solutions Company Web site:
<http://www.infoprint.com>.

output-format-supported

Used with the **number-up-supported** attribute to identify the ways of imposing pages on a sheet that this actual destination supports.

GUI label

Output formats allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can specify any of these fixed values:

- **side-by-side-copies**
- **simple-n-up**
- **booklet-print**
- **booklet-print-with-integrated-cover**
- **slit-and-merge**

Default Value

- **booklet-print-with-integrated-cover**
- **side-by-side-copies**
- **simple-n-up**
- **booklet-print**
- **slit-and-merge**

Usage Guidelines

- See the document attribute **output-format** for explanations of the attribute values.
- InfoPrint compares the document attribute **output-format** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.
- You should not use **booklet-print** or **booklet-print-with-integrated-cover** with a job ticket. The other output formats listed with **output-format-supported** should be used with caution with job tickets, because the other output formats apply to signatures and not individual pages.
- The **booklet-print**, **booklet-print-with-integrated-cover**, and **simple-n-up** values are not supported when the **reverse-page-order** actual destination and document attributes are true.

overlay

Specifies an overlay that InfoPrint uses for each sheet-side for all jobs printed on this actual destination.

GUI label

Medium overlay

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to eight characters long that contains the name of the overlay.

Default Value

No default value

Usage Guidelines

- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.

page-select-supported

Specifies the type of page numbering that this actual destination supports.

GUI label

Range of pages allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Metacode

Type

Resettable, multi-valued

Allowed Values

You can enter a fixed value of **numeric**.

Default Value

numeric

Usage Guidelines

InfoPrint compares the document attribute **page-select** to this attribute for validation and scheduling.

pcl-server-address

Identifies the Internet Protocol address (IP Address parameter) of the host where the daemon that transforms PCL data imbedded in an AFP data file is located in.

GUI label

PCL server address

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that is either of these types of address:

Dotted decimal address

A series of integers in the range of 0 to 255, each separated by a period, . (decimal address). For example:

9.99.12.85

Hostname

For example:

leo.infoprint.com

Default Value

127.0.0.1 (the local host)

Usage Guidelines

This attribute is not used in transforming PCL data that is not imbedded in AFP data files.

pcl-server-port

Identifies the Port Number parameter of the host where the daemon that transforms PCL data imbedded in an AFP data file is located in.

GUI label

PCL server port

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647, but you typically enter an integer from 5001 to 65535.

Default Value

8253

Usage Guidelines

This attribute is not used in transforming PCL data that is not imbedded in AFP data files.

physical-printer

See **destination-name**.

plex

Identifies the plexes that this printer prints. Plex indicates whether the page images of the output document are conditioned for eventual one-sided or two-sided printing, and the relative orientation of consecutive pages.

GUI label

Plex to print

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

- **simplex**
- **tumble**

Default Values

AIX **simplex**

InfoPrint 2000
 simplex

PSF **simplex**

Usage Guidelines

- The value of the **plex** attribute must be one of the values of the **plexes-supported** attribute.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- InfoPrint uses plex specifications in this order:
 1. The **plex** document attribute unless you specify different values for this attribute for each document in a job and also specify a value for the document form-definition attribute. In this case, InfoPrint ignores the **plex** document attribute.
 2. The plex specification in the document or default document form definition.
 3. The **plex** actual destination attribute.

Note: Because all supplied form definitions contain a plex specification, the **plex** actual destination attribute is used only with custom form definitions that do not contain a plex specification.

plexes-supported

Identifies the plexes that this actual destination supports. Plex indicates whether the page images of the output document are conditioned for eventual one-sided or two-sided printing, and the relative orientation of consecutive pages.

GUI label

Plexes allowed

DSS

AIX, BSD, PSF, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **simplex**
- **tumble**

Default Values

AIX **simplex**

BSD No default value

PSF (standard InfoPrint Manager Administration GUI and command line)

If SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise **simplex, tumble**.

PSF (basic InfoPrint Manager Administration GUI)

If SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise **simplex, tumble**.

Usage Guidelines

- InfoPrint compares the document attribute **plex** to this attribute for scheduling.
- The InfoPrint Manager server can automatically set the value for **plexes-supported** for an SNMP printer **only** if you do **not** explicitly set the attribute when creating or modifying the actual destination or if you reset the attribute to the InfoPrint Manager default.

postscript-server-address

Identifies the Internet Protocol address (IP Address parameter) of the host where the daemon that transforms PostScript data imbedded in an AFP data file is located in.

GUI label

PostScript server address

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that is either of these types of address:

Dotted decimal address

A series of integers in the range of 0 to 255, each separated by a period, . (decimal address). For example:

9.99.12.85

Hostname

For example:

Default Value

127.0.0.1 (the local host)

Usage Guidelines

- This attribute is not used in transforming PostScript data that is not imbedded in AFP data files.

postscript-server-port

Identifies the Port Number parameter of the host where the daemon that transforms PostScript data imbedded in an AFP data file is located in.

GUI label

PostScript server port

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647, but you typically enter an integer from 5001 to 65535.

Default Value

8251

Usage Guidelines

This attribute is not used in transforming PostScript data that is not imbedded in AFP data files.

presentation-fidelity-problem-reported

Identifies the types of errors that cause this actual destination to stop printing when InfoPrint detects them.

GUI label

Presentation fidelity problem reported

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
barcode	InfoPrint stops printing the file when it detects an error in bar code data in the Bar Code Object Content Architecture (BCOCA) data stream or if the printer device does not support BCOCA.
image	InfoPrint stops printing the file when it detects an error in image or graphics data in the Image Object Content Architecture (IOCA) or Graphics Object Content Architecture (GOCA) data streams, or if the printer device does not support IOCA or GOCA.
all	InfoPrint stops printing the file if it detects either barcode or image data problems.
none	InfoPrint prints the file without reporting barcode or image errors.

Default Value

none

presentation-object-container-extraction-mode

Specifies the degree of optimization attempted by transforms.

GUI label

Presentation object container extraction mode

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

ignore All data is ripped.

inline Resources are identified and extracted for reuse in a document, and the resources are kept as part of the file.

Default Value

ignore

print-edge-marks

Specifies whether this actual destination prints edge marks on the output.

GUI label

Print edge marks

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

print-qualities-supported

Identifies the levels of print quality available on this actual destination.

GUI label

Print qualities allowed

DSS

AIX, BSD

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **qualities-supported**.

Allowed Values

You can enter any of these fixed values:

- **draft**
- **high**

- **normal**

Default Values

AIX **normal**

BSD No default value

Usage Guidelines

- InfoPrint compares the document attribute **print-quality** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

print-queue

See **print-queue-name**.

print-queue-name

Specifies which print queue is the default value for the **destination-command** attribute.

GUI label

AIX print queue (AIX DSS)

Windows print queue (Passthrough DSS)

Xerox print queue (Metacode DSS)

DSS

PSF, Metacode

Type

Initially settable, single-valued

Input Synonym

You can use the synonym **print-queue**.

Allowed Values

You can enter a text string up to 255 characters long that contains the name of the appropriate print queue.

Default Value

No default value

Usage Guidelines

- Do not confuse this attribute with the **associated-queue** attribute, which specifies the InfoPrint queue that sends jobs to this actual destination.
- If the attachment-type is **aix**, InfoPrint uses this attribute to determine the default value following the **-P** flag in the **destination-command** attribute.

- If the attachment type is not **aix**, **passthrough**, or **PSF Other**, InfoPrint does not use the **print-queue-name** attribute.

printer

See **destination-name**.

printer-command

See **destination-command**.

printer-data-stream

See **destination-data-stream**.

printer-end-sheet

Identifies the style of end sheet that the printer device uses.

GUI label

End sheet

DSS

AIX, PSF

Type

Resettable, single-valued

Allowed Values

You can enter the name of any auxiliary sheet object. For PSF only, you can enter an identifier of an auxiliary-sheet object. The supplied auxiliary sheet objects include:

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
accounting-log	PSF	This value is technically valid, but should not be used for end sheets.
blank	PSF	The end sheet is blank.
brief	AIX, PSF	The end sheet style is brief.
full	AIX, PSF	The end sheet style is full.
job-ticket	PSF	The job ticket is printed on the end sheet.
none	AIX, PSF	No end sheet prints.
64xx	PSF	The end sheet style is for the 64xx and 6500 printers.

Default Value

AIX **full**
 PSF **none**

Usage Guidelines

- PSF actual destinations can use auxiliary-sheet objects if they have valid **psf-exit-xxx** values. AIX actual destinations print auxiliary sheets, but they do not use auxiliary-sheet objects.
- InfoPrint verifies that the value of this attribute is a value of the **end-sheets-supported** attribute.

printer-escape-codes

Specifies the printer escape codes that this actual destination uses to print line-data jobs.

GUI label

Escape codes

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter a string up to 255 characters long containing the printer escape codes.

Syntax

Escape codes must be in lowercase format and cannot include spaces. You must enter unprintable characters, and can enter printable characters, in this format:

`\xnn`

where *nn* is a two-character (one-byte) hexadecimal code. For example:

`\x1b`

represents ESC

Default Value

No default value

Usage Guidelines

Use printer escape codes to control fonts, line spacing, and the size of the output page, enabling more than 80 characters to print on a line.

For example, this hex string:

`\x1b\x5b\x53\x0c\x00\x01\x20\x01\x20\x00\x00\x4b\x60\x38\x40\x4e\xc0`

translates to these values:

1b	ESC
5b	Left square bracket
53	S
0c00	Length of command
0120	Top margin (0.2 inches)
0120	Bottom margin (0.2 inches)
0000	Left margin (0 inches)
4b60	Right margin (13.4 inches)
3840	Page length (10 inches)
4ec0	Page width (14 inches)

The first four values (ESC, [, S, command length) are always the same in a string of escape codes specifying page dimensions. The values representing the margins and page length and width are hex values in 1440ths of an inch and can be changed to meet your specifications. All dimensions are measured as if the page were printed in portrait.

printer-locations

See **destination-location**.

printer-memory

Defines the amount of printer memory (in kilobytes) for this PSF command-attached or other-driver attached printer.

GUI label

Memory (KBytes)

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 512 to 65535. The unit is kilobytes.

Default Value

Other-driver attached actual destinations
1024

Command-attached actual destinations
1024

Other-driver attached types
No default value

Usage Guidelines

- InfoPrint uses this attribute with PSF command-attached actual destinations and other-driver attached actual destinations and ignores it for other attachment types.
- If the printer device reports an out-of-memory condition, you can add more memory to the printer device or decrease the value for this attribute.

printer-model

See `destination-model`.

printer-name

See `destination-name`.

printer-needs-attention-time

See `destination-needs-attention-time`.

printer-needs-key-operator-attention-time

See `destination-needs-key-operator-attention-time`.

printer-pass-through

See `destination-pass-through`.

printer-realization

See `destination-realization`.

printer-register-threshold

See `destination-realization`.

printer-release-timer

See `destination-release-timer`.

printer-resolutions-ready

Specifies which of the values specified for the `printer-resolutions-supported` attribute this actual destination is ready to use.

GUI label

Resolutions ready

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values: 240, 300, 360, 480, 600, 720, 1200.

The unit is pels.

Default Values

InfoPrint 5000 printer
720, 360

Basic InfoPrint Manager Administration GUI
600

For all other printers (Standard InfoPrint Manager Administration GUI and command line)
None

Usage Guidelines

- This attribute applies only for printing image data. It has no effect on font resolutions.
- See the printer device documentation for information about the resolution you should specify.
- If you specify a resolution that the printer device does not support, jobs will still print under most conditions. However, you might see poor printed results.
- The values of the **printer-resolutions-ready** attribute must be a subset of the values of the **printer-resolutions-supported** attribute.
- If you do not provide a printer resolution when you submit the job or the printer does not support the current value for the **default-printer-resolution** document attribute, the job might still print, but you might see poor printed results.
- If the **default-printer-resolution** document attribute is not set, the first value specified with the **printer-resolutions-ready** attribute will be used.
- The InfoPrint 5000 series printers only support 360 and 720 resolutions. All other printer models do not support these resolutions.
- If the **printer-resolution-ready** attribute is not set, the image transform uses the value specified in the transform configuration file, while the other transforms use the 300 resolution.

printer-resolutions-supported

Specifies the resolution, in pels, at which the printer device can print jobs.

GUI label

Resolutions allowed

DSS

PSF, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>DSS</i>
240	PSF
300	PSF
360	PSF
480	PSF
600	PSF, InfoPrint 2000
720	PSF
1200	PSF

The unit is pels.

Default Values

InfoPrint 2000

600

PSF InfoPrint 5000 printer (command line): 720, 360

All other printers: none

PSF (basic and standard InfoPrint Manager Administration GUI)

1200, 240, 300, 360, 480, 600, 720

Usage Guidelines

- This attribute applies only for printing image data. It has no effect on font resolutions.
- See the printer device documentation for information about the resolution you should specify.
- If you specify a resolution that the printer device does not support, jobs will still print under most conditions. However, you might see poor printed results.
- You can use this attribute to restrict use of this actual destination.
- The InfoPrint 5000 series printers only support 360 and 720 resolutions. All other printer models do not support these resolutions.

printer-separator-sheet

Identifies the style of separator sheet that the printer device uses.

GUI label

Slip/Separator sheet

DSS

AIX, PSF

Type

Resettable, single-valued

Allowed Values

You can enter the name of any auxiliary sheet object. For PSF only, you can enter an identifier of an auxiliary-sheet object. The supplied auxiliary sheet objects include:

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
accounting-log	PSF	This value is technically valid, but should not be used for separator sheets.
blank	PSF	The separator sheet is blank.
brief	PSF	The separator sheet style is brief.
full	PSF	The separator sheet style is full.
job-ticket	PSF	The job ticket is printed on the separator sheet.
none	AIX, PSF	No separator sheet prints.
64xx	PSF	The separator sheet style is for the 64xx and 6500 printers.

Default Value

AIX **none**

PSF **none**

Usage Guidelines

- PSF actual destinations can use auxiliary-sheet objects if they have valid **psf-exit-xxx** values. AIX actual destinations print start and end sheets, but they do not use auxiliary-sheet objects.
- Because AIX actual destinations do not print separator sheets, the only valid value for them is **none**.
- InfoPrint verifies that the value of this attribute is a value of the **separator-sheets-supported** attribute.

printer-start-sheet

Identifies the type of start sheet that this printer device uses.

GUI label

Start sheet

DSS

AIX, PSF, IPP, Passthrough

Type

Resettable, single-valued

Allowed Values

You can enter the name of any auxiliary sheet object. For PSF only, you can enter an identifier of an auxiliary-sheet object. The supplied auxiliary sheet objects include:

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
accounting-log	PSF	This value is technically valid, but should not be used for start sheets.
blank	PSF	The start sheet is blank.
brief	AIX, PSF, IPP, Passthrough	The start sheet style is brief.
full	AIX, PSF, IPP, Passthrough	The start sheet style is full.
job-ticket	PSF	The job ticket is printed on the start sheet.
none	AIX, PSF, IPP, Passthrough	No start sheet prints.
<i>filename</i>	IPP, Passthrough	The location of a customized auxiliary sheet template.
64xx	PSF	The start sheet style is for the 64xx and 6500 printers.

Default Value

AIX, IPP, Passthrough
full

PSF (standard InfoPrint Manager Administration GUI and command line)
full

PSF (basic InfoPrint Manager Administration GUI)
job-ticket

Usage Guidelines

- PSF actual destinations can use auxiliary-sheet objects if they have valid **psf-exit-xxx** values. AIX actual destinations print start and end sheets, but they do not use auxiliary-sheet objects.
- InfoPrint verifies that the value of this attribute is a value of the **start-sheets-supported** attribute.
- For IPP and Passthrough printers, the auxiliary sheets specified with *filename* can be customized by copying and modifying one of these template files shipped with InfoPrint Manager for Windows:

install_path\bin\brief.ps

Template for "brief" format, Postscript output format

install_path\bin\full.ps

Template for "full" format, Postscript output format

install_path\bin\brief.txt

Template for "brief" format, PCL/ASCII output format

install_path\bin\full.txt

Template for "full" format, PCL/ASCII output format

The template files contain special *insert formatting* characters that are used to indicate where the Passthrough DSS inserts certain information about the print job:

- %B** Large *banner style* job-owner/job-originator/user-name (whichever is found first)
- %t, %T** job-name heading, job-name contents
- %p, %P** time printed heading, time printed contents
- %q, %Q** job-submission-time heading, job-submission-time contents
- %h, %H** actual-destination and server heading, actual-destination and server contents
- %s, %S** job-owner/job-originator/user-name heading, job-owner/job-originator/user-name contents
- %d, %D** results-profile delivery-address, %s heading, results-profile delivery-address, or %S contents
- %c, %C** job-comment heading, job-comment contents

printer-state

See **destination-state**.

printer-tcpip-internet-address

See **destination-tcpip-internet-address**.

printer-tcpip-port-number

See **destination-tcpip-port-number**.

printer-timeout-period

See **destination-timeout-period**.

problem-message

Provides information about the cause of a problem with a actual destination.

GUI label

Problem message

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to a text string that contains the message information.

Default Value

No default value

Usage Guidelines

- This attribute can contain problem information whenever the actual destination state is not **idle**, **connecting-to-printer**, or **printing**.
- If the actual destination state is **needs-key-operator**, InfoPrint disables the actual destination. If the actual destination uses SNMP, InfoPrint automatically re-enables it when the problem is corrected. To prevent automatic re-enabling, manually disable the actual destination.

psf-tray-characteristics

Defines the current characteristics of the input trays on this output device.

GUI label

Media ready

DSS

PSF, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued, complex

Syntax

input-tray:medium-loaded:job-bin-number:tray-number:duplex-supported

Separate values with colons, for example:

top:letter:1:1:false

Components

- **input-tray**
Specifies which input tray this value defines.
 - *GUI label*
Input tray
 - *Type*
Single-valued
 - *Allowed Values*
You can enter any name you want, for example:
 - **alternate**
 - **bottom**
 - **envelope**

Note: For PSF command-attached and PSF other-driver-attached printers, the string envelope must be included in the name.

- **insert**

Note: The **insert** input tray is on the finisher, not the printer device itself. This means that you cannot print inserts with the rest of the job. If you want printed inserts, preprint them and load the printed sheets into the **insert** input tray.

- **large-capacity**

- **main**

- **manual**

Note: For PSF command-attached and PSF other-driver-attached printers, the string manual must be included in the name.

- **side**

- **top**

- *Default Value*

The first value in the InfoPrint Manager GUI for input tray.

- **media-loaded**

Specifies the medium that is now in the input tray. InfoPrint adds the value you specify for this component automatically to the **media-ready** actual destination attribute.

- *GUI label*

Media ready

- *Type*

Single-valued

- *Allowed Values*

The value you specify does not have to match one of the values specified by the **medium-identifier** medium attributes. However, it must be one of the values specified by the **media-supported** attribute for this actual destination.

For PSF-other and PSF-command DSSs, these types of media is supported:

- a3
 - iso-a3-colored
 - iso-a3-white
- a4
 - iso-a4-colored
 - iso-a4-transparent
 - iso-a4-white
- a5
 - iso-a5-colored
 - iso-a5-white
- a6
 - iso-a6-white
- jis-b4
 - jis-b4-colored
 - jis-b4-white
- b5
 - iso-b5-colored
 - iso-b5-envelope
 - iso-b5-white
 - jis-b5
 - jis-b5-colored

jis-b5-white
jis-b6
jis-b6-white
executive
legal
na-legal-colored
na-legal-white
letter
na-letter-colored
na-letter-transparent
na-letter-white
na-number-9-envelope
iso-c5-envelope
iso-designated-long-envelope
na-number-10-envelope
monarch-envelope
folio
8x13
invoice
tabloid
jpost
jpostd
hagaki
env-b5

– *Default Value*

The default value for PSF command-attached and other-driver attached actual destinations is **letter**. For other actual destinations, there is no default value.

– *Usage Guidelines*

If you want to change the value of this component, make sure you add the value to the **media-supported** attribute first.

• **job-bin-number**

Specifies a bin number that the data stream can specify to select this input tray.

– *GUI label*

Bin number

– *Type*

Single-valued

– *Allowed Values*

You can enter an integer from 1 to 255.

– *Default Value*

If SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise, the default value for PSF command-attached and other-driver attached actual destinations is **3**. For other actual destinations, there is no default value.

– *Usage Guidelines*

- Each AFP printer device model has its own configuration of paper input trays, known as bins, each with a specific number. This component maps the value specified for the input tray and loaded media to a bin number that InfoPrint understands and uses. Some values have special meanings:

Table 17. Input tray names, job bin numbers, and tray numbers on AFP printer devices

<i>Input Tray Name</i>	<i>Job Bin Number</i>	<i>Tray Number</i>
envelope	65	6

Table 17. Input tray names, job bin numbers, and tray numbers on AFP printer devices (continued)

<i>Input Tray Name</i>	<i>Job Bin Number</i>	<i>Tray Number</i>
manual	100	2

- For PSF-other and PSF command-attached actual destinations, **job-bin-number** must be unique for each input tray. For example, if the actual destination has three input trays, each input tray must have a different **job-bin-number**.

- **tray-number**

Identifies the tray number of the input tray, depending on the printer model, associated with the job bin number.

- *GUI label*

Tray number

- *Type*

Single-valued

- *Allowed Values*

You can enter any integer value that the printer recognizes.

- *Default Value*

The default value for PSF command-attached and other-driver attached actual destinations is **1**. This component does not apply to other attachment types.

For command-attached actual destinations and other-driver attached actual destinations, if you specify any of the values for the **input-tray** name shown in the table under **job-bin-number** and no value for this component, the value for this component defaults to the value shown in the explanation of the **job-bin-number** component.

- *Usage Guidelines*

See the documentation for the printer device for further information about which types of input trays this printer supports.

- **duplex-supported**

Specifies whether two-sided printing is possible from this input tray.

- *GUI label*

Duplex

- *Type*

Single-valued

- *Allowed Values*

You can enter one of these fixed values:

Fixed Value

Input Synonym

true **yes**

false **no**

- *Default Value*

The default value for PSF command-attached and other-driver attached actual destinations is **false**. This component does not apply to other attachment types.

Default Values

If SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise, the default values are as described for each component.

For Generalized Fax, these defaults apply:

top letter

bottom

A4

Note: It is recommended that you do not modify the defaults for Generalized Fax.

Usage Guidelines

- With PSF command-attached or PSF other-driver attached printers, you can specify a maximum of 15 values, one for each input tray of the printer device.
- For PSF-other and PSF command-attached actual destinations, **job-bin-number** must be unique for each input tray. For example, if the actual destination has three input trays, each input tray must have a different **job-bin-number**.
- With PSF TCP/IP attached printers, there is no limit on the number of values you can specify for **psf-tray-characteristics**.
- InfoPrint automatically sets the **media-ready** and **input-trays-supported** actual destination attributes from the value you set here.
- InfoPrint verifies that the values of the **media-loaded** component of this attribute are values of the **media-supported** attribute.
- The InfoPrint Manager server can automatically set the values for **psf-tray-characteristics** for an SNMP printer **only** if you do **not** explicitly set the attribute when creating or modifying the actual destination or if you reset the attribute to the InfoPrint Manager default.

Note: For media, the automatic default only detects the **size** of the medium. If you have different media that are the same size (for example, three different letter-size preprinted forms) and you need to differentiate between them in the attributes, you must explicitly set the attributes instead of using the automatic default.

public-context-presentation-object-container

Identifies which presentation object containers (called data object resources in the IPDS Reference) are public. Any uniquely identified resource found in a directory that is listed in this directory path is a candidate for reuse across jobs.

GUI label

Public presentation object containers

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter the name of a public-context-presentation object or a text string up to 255 characters long that defines the directory path to the public-context-presentation object. You can specify one or more paths for one public context. You can specify paths for file systems mounted to AIX, such as MVS data sets and VM minidisks.

Syntax

path:path for AIX
path;path for Windows

Separate path names with colons on AIX, for example:

```
/dor:/dept123/presentation-object-container
```

Separate path names with semicolons on Windows, for example:

```
d:\dor;d:\dept123\presentation-object-container
```

Default Value

With AIX, no default value.

With Windows, no default value.

qualities-supported

See `print-qualities-supported`.

register-threshold

See `destination-register-threshold`.

registered-with-spooler

Indicates whether this actual destination and the server containing the actual destination's queue have established communication.

GUI label

Registered with spooler

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets one of these fixed values:

- `true`

- false

Default Value

false

resource-context

Defines the default directory paths that InfoPrint searches for AFP resources, including fonts, form definitions, overlays, page definitions, page segments, and color mapping tables.

GUI label

Location of resources

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Metacode

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context object or a text string up to 255 characters long that defines the directory path to fonts. You can specify one or more paths for one resource context. You can specify paths for file systems mounted to AIX, such as MVS data sets and VM minidisks.

For more information about how InfoPrint searches file extensions for resources, see “Creating and Managing Resource-Context Objects” in *InfoPrint Manager for AIX: Procedures*.

Syntax

path:path:resourcecontextname for AIX
path;path;resourcecontextname for Windows

Where *resourcecontextname* is the name of the resource context object that is located in the server namespace.

Separate multiple paths with a colon on AIX or a semicolon on Windows, for example:

- In AIX,
/fonts:/dept123/fonts
- In Windows,
d:\fontlib;d:\dept123\fonts

Default Value

With AIX, no default values, but InfoPrint always searches:

1. /usr/lpp/psf/reslib

2. `/usr/lpp/afpfonts`
3. `/usr/lpp/psf/fontlib`

With Windows, no default values, but InfoPrint always searches:

1. `install_path\reslib`
2. `install_path\afpfonts`
3. `install_path\fontlib`

Usage Guidelines

- You can use this attribute to locate default resources or color mapping tables.
- InfoPrint searches resource paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-font**, **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, or **resource-context-page-segment** document attribute, as appropriate for the type of resource.
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-font**, **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, or **resource-context-page-segment** actual destination attribute, as appropriate for the type of resource
 6. **resource-context** actual destination attribute
 7. With AIX:
 - a. `/usr/lpp/psf/reslib`
 - b. `/usr/lpp/afpfonts`
 - c. `/usr/lpp/psf/fontlib`
 8. With Windows, where `install_path` indicates the path where you installed InfoPrint Manager for Windows:
 - a. `install_path\reslib`
 - b. `install_path\afpfonts`
 - c. `install_path\fontlib`

If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

Note: With the Metacode DSS, the search path order is not followed. The Metacode DSS uses the first directory in the **resource-context** attribute.

- InfoPrint Manager uses the default directory paths for AFP resources specified with **resource-context** at print time; they are not searched by ACIF or the **line2afp** transform during processing. When you need to have ACIF or the **line2afp** transform search the default directory paths for AFP resources, use the **resource-context** document/default document attribute.
- When using Color Mapping Tables with InfoPrint Manager, you must identify the path for your table explicitly. There is no default path for Color Mapping Tables.

resource-context-font

Defines the directory paths that InfoPrint searches for fonts for the job.

GUI label

Location of fonts

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context object or a text string up to 255 characters long that defines the directory path to the AFP resources. You can specify one or more paths for one resource context.

Syntax

path:path for AIX

path;path for Windows

Separate multiple paths with a colon on AIX or a semicolon on Windows.

Default Value

With AIX, no default values, but InfoPrint always searches */usr/lpp/psf/reslib*.

With Windows, no default values, but InfoPrint always searches *install_path\reslib*.

Usage Guidelines

You can use this attribute to locate default resources.

InfoPrint searches resource paths in this order:

1. **resource-context-user** document attribute
2. **resource-context-font** document attribute
3. **resource-context** document attribute
4. **PSFPATH** environment variable
5. **resource-context-font** actual destination attribute
6. **resource-context** actual destination attribute
7. With AIX:
 - a. **/usr/lpp/psf/reslib**
 - b. **/usr/lpp/afpfonts** for fonts
 - c. **/usr/lpp/psf/fontlib** for fonts
8. With Windows:
 - a. *install_path***reslib**
 - b. *install_path***afpfonts** for fonts
 - c. *install_path***fontlib** for fonts

If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

InfoPrint Manager uses the directory paths for fonts specified with **resource-context-font** at print time; they are not searched by ACIF or the **line2afp** transform during processing. When you need to have ACIF or the **line2afp** transform search the directory paths for fonts, use the **resource-context-font** document/default document attribute.

resource-context-form-definition

Defines the directory paths that InfoPrint searches for the form definition for the job.

GUI label

Location of form definitions

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context object or a text string up to 255 characters long that defines the directory path to form definitions. You can specify one or more paths for one resource context. In AIX, you can specify paths for file systems mounted to AIX, such as MVS data sets and VM minidisks.

Syntax

path:path for AIX
path;path for Windows

Separate path names with colons on AIX and semicolons on Windows, for example:

- For AIX:
`/formdef:/dept123/form`
- For Windows:
`install_path\reslib\formdef;d:\dept123\form`

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches *install_path***reslib**.

Usage Guidelines

- You can use either the document or the actual destination **form-definition** attribute to specify the form definition.

- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-form-definition** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-form-definition** actual destination attribute
 6. With AIX, */usr/lpp/psf/reslib*
 7. With Windows, *install_path\reslib*
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.
- InfoPrint Manager uses the directory paths for the form definition for the job specified with **resource-context-form-definition** at print time; they are not searched by ACIF or the **line2afp** transform during processing. When you need to have ACIF or the **line2afp** transform search the directory paths for the form definition for the job, use the **resource-context-form-definition** document/default document attribute.

resource-context-overlay

Defines the directory paths that InfoPrint searches for an overlay for the job.

GUI label

Location of overlays

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context object or a text string up to 255 characters long that defines the directory path to overlays. You can specify one or more paths for one resource context. You can specify paths for file systems mounted to AIX, such as MVS data sets and VM minidisks.

Syntax

path:path for AIX
path;path for Windows

Separate path names with colons on AIX, for example:

/overlay:/dept123/overlay

Separate path names with semicolons on Windows, for example:

c:\overlay;d:\dept123\overlay

Default Value

With AIX, no default values, but InfoPrint always searches */usr/lpp/psf/reslib*.

With Windows, no default values, but InfoPrint always searches *install_path\reslib*.

Usage Guidelines

- You use a form definition for the job to specify the overlay.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-overlay** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-overlay** actual destination attribute
 6. With AIX, */usr/lpp/psf/reslib*
 7. With Windows, *install_path\reslib*
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints an error messages at the end of the job. InfoPrint reports the job as completed.
- InfoPrint Manager uses the directory paths for an overlay for the job specified with **resource-context-overlay** at print time; they are not searched by ACIF or the **line2afp** transform during processing. When you need to have ACIF or the **line2afp** transform search the directory paths for an overlay for the job, use the **resource-context-overlay** document/default document attribute.

resource-context-page-definition

Defines the directory paths that InfoPrint searches for a page definition for the job.

GUI label

Location of page definitions

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context object or a text string up to 255 characters long that defines the directory path to page definitions. You can specify one or more paths for one resource context. You can specify paths for file systems mounted to AIX, such as MVS data sets and VM minidisks.

Syntax

path:path for AIX *path;path* Windows

Separate path names with colons on AIX, for example:

/pagedef:/dept123/page-definition

Separate path names with semicolons on Windows, for example:

c:\pagedef;d:\dept123\page-definition

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches *install_path*\reslib.

Usage Guidelines

- You use the **page-definition** document attribute to specify the page definition for the job.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-page-definition** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-page-definition** actual destination attribute
 6. With AIX, **/usr/lpp/psf/reslib**
 7. With Windows, *install_path*\reslib
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.
- InfoPrint Manager uses the directory paths for a page definition for the job specified with **resource-context-page-definition** at print time; they are not searched by ACIF or the **line2afp** transform during processing. When you need to have ACIF or the **line2afp** transform search the directory paths for a page definition for the job, use the **resource-context-page-definition** document/default document attribute.

resource-context-page-segment

Defines the directory paths that InfoPrint searches for page segments for the job.

GUI label

Location of page segments

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context object or a text string up to 255 characters long that defines the directory path to page segments. You can specify one or more paths for one resource context. You can specify paths for file systems

mounted to AIX, such as MVS data sets and VM minidisks.

Syntax

path:path for AIX

path;path for Windows

Separate path names with colons on AIX, for example:

/pageseg:/dept123/page-segment

Separate path names with semicolons on Windows, for example:

d:\pageseg;d:\dept123\page-segment

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches *install_path*\reslib.

Usage Guidelines

- Page segments are identified in the document. If the document refers to a page segment that is located external to the document, its location must be specified in at least one of the components of the search path as described below.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-page-segment** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-page-segment** actual destination attribute
 6. For AIX, **/usr/lpp/psf/reslib**
 7. For Windows, *install_path*\reslib
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.
- InfoPrint Manager uses the directory paths for a page segment for the job specified with **resource-context-page-segment** at print time; they are not searched by ACIF or the **line2afp** transform during processing. When you need to have ACIF or the **line2afp** transform search the directory paths for a page segment for the job, use the **resource-context-page-segment** document/default document attribute.

resource-context-presentation-object-container

Adds to the directory paths that InfoPrint searches for color management resources (CMRs) and presentation object containers (called data object resources in the *IPDS Reference*, such as EPS, IOCA images, or PDF pages) for the actual destination.

GUI label

Location of presentation object containers

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context-presentation object, a CMR, or a text string up to 255 characters long that defines the directory path to the resource-context-presentation object. You can specify one or more paths for one resource context. You can specify paths for file systems mounted to AIX, such as MVS data sets and VM minidisks.

Syntax

path:path for AIX

path;path for Windows

Separate path names with colons on AIX, for example:

- /dor:/dept123/presentation-object-container
- /cmr:/dept321/color-management-resource

Separate path names with semicolons on Windows, for example:

- d:\dor;d:\dept123\presentation-object-container
- d:\cmr;d:\dept321\color-management-resource

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches *install_path*\reslib.

Usage Guidelines

- Presentation objects are identified in the document. If the document refers to an object that is located external to the document, its location must be specified in at least one of the components of the search path as described below.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-presentation-object-container** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-presentation-object-container** actual destination attribute
 6. For AIX, **/usr/lpp/psf/reslib**
 7. For Windows, *install_path*\reslib
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.
- InfoPrint Manager uses the directory paths for presentation object containers for the actual destination specified with **resource-context-presentation-object-containers** at print time; they are not searched by ACIF or the **line2afp**

transform during processing. When you need to have ACIF or the **line2afp** transform search the directory paths for presentation object containers for the actual destination, use the **resource-context-presentation-object-container** document/default document attribute.

reuse-inline-presentation-object-container

Specifies whether uniquely identified resources discovered inline are candidates for reuse across jobs. For printers that support the capture of presentation-object containers, resources can be reused across invocations of PSF or in shared environments with PSF/MVS.

GUI label

Reuse inline presentation object containers

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

reverse-page-order

Indicates whether this actual destination should print pages of a job in reverse order, that is, last page first.

GUI label

Reverse page order

DSS

PSF, Generalized Fax, Email, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When you use **reverse-page-order**, there will be a delay before a job begins printing because the entire job must rip before the pages can be printed in reverse order.
- When you use **reverse-page-order**, the form definition can be affected. While the **reverse-page-order** attribute reverses the order of the pages in the job, it does not alter the layout that InfoPrint uses for the job. This can result in the pages of the job appearing in different positions on the sheet than if **reverse-page-order** were not used. For example, with a two page job, if the form definition has the front page offset by a certain amount, but not the back page, then after reversing the job, page 2, which is now first to be output will be offset instead of page 1, which is now on the back of the sheet. To fix this, the form definition and other attributes (such as, **overlay**, **overlay-front**, **overlay-back**, **x-image shift**, **x-image-shift-back**, **y-image-shift**, and **y-image-shift-back**) should be modified to get the correct placement of the pages on the output sheets. This modification needs to be done by the user or system administrator.
- The **reverse-page-order** attribute does not apply to ASCII, booklet jobs, or simple-n-up jobs.
- When using **reverse-page-order** with simplex jobs, a blank page can be added at the front of the document if the document has an odd number of pages.
- When using **reverse-page-order** with **slit-and-merge** value on the **output-format** attribute, a blank sheet can be added if more than one blank page would be needed to make the document a multiple of 4 pages. For instance, if the document has 1 or 2 pages, 5 or 6 pages, 9 or 10 pages, then a blank sheet will be added to the end of the reversed job, after the first page from the input file. This would mean when flipping the output over, the blank sheet is in front of page 1. For cases where no pages need to be added, or only one page needs to be added, as in the case of a 7 or 8 page document, the output will not contain any blank sheets.

sap-gateway-host

Specifies the name of the host where the SAP gateway service identified in the **sap-gateway-service** attribute is running.

GUI label

SAP gateway host

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains the name of the SAP-gateway host.

Default Value

No default value

sap-gateway-service

Specifies the name of the SAP gateway service to which the actual destination will register to receive job requests, such as a fax request.

GUI label

SAP gateway service

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains the name of the SAP-gateway service.

Default Value

No default value

sap-logon-client

Specifies the name of the SAP client that the actual destination will log onto, such as 090.

GUI label

SAP client

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You should enter the 3 digit characters that represents the SAP-system client that the actual destination will log onto.

Default Value

No default value

sap-logon-password

Specifies the password for the SAP-logon userid identified with the **sap-logon-userid** actual destination attribute. This password is not visible on list attribute queries.

GUI label

SAP password

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You should enter the three to eight alphanumeric characters that represent the password for the SAP-logon userid. Passwords are not case-sensitive.

Default Value

No default value

sap-logon-userid

Specifies 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.

GUI label

SAP user id

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You should enter the 12 alphanumeric-character 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.

Default Value

No default value

sap-program-id

Specifies the program ID specified in the SAP RFC destination that was created on the SAP system for this actual destination.

GUI label

SAP program id

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains the program id specified in the SAP RFC destination that was created on the SAP system for this actual destination.

Default Value

No default value

sap-system-hostname

Specifies 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.

GUI label

SAP system hostname

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains 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*.

Default Value

No default value

sap-system-name

Specifies the three-character name of the SAP system, such as SJD, to which jobs, such as faxes, will be delivered by the actual destination.

GUI label

SAP system name

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You should enter the three-character name of the SAP system to which jobs, such as faxes, will be delivered by the actual destination.

Default Value

No default value

sap-system-number

Specifies the system number of the SAP system, such as 04, to which jobs, such as faxes, will be delivered by the actual destination.

GUI label

SAP system number

DSS

sapconnect

Type

Resettable, single-valued

Allowed Values

You should enter the two-digit number of the SAP system to which jobs, such as faxes, will be delivered by the actual destination.

Default Value

No default value

scanner-corrections-supported

Identifies the scanner calibration methods for which this actual destination supports correction.

GUI label

Scanner corrections allowed

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- Ricoh420
- XeroxDocuimage620S
- none

Default Values

Ricoh420, XeroxDocuimage620S, none

Usage Guidelines

InfoPrint compares the document attribute **scanner-correction** to this attribute for validation and scheduling.

scheduler-sort-primary-order

Identifies which of the schedulers specified by the **schedulers-supported** attribute InfoPrint uses to determine how to schedule jobs.

GUI label

Primary scheduler

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
deadline	InfoPrint schedules jobs with the earliest deadline first.
fifo	InfoPrint schedules jobs in the order they are submitted.
job-priority	InfoPrint schedules jobs in order of priority.
longest-job-first	InfoPrint schedules jobs in order of size, longest first.
shortest-job-first	InfoPrint schedules jobs in order of size, shortest first.

Default Value

job-priority

Usage Guidelines

The **scheduler-sort-primary-order** and **scheduler-sort-secondary-order** actual destination attributes work together in scheduling jobs and have these interdependencies:

- If **scheduler-sort-primary-order** is set to **fifo**, the **scheduler-sort-secondary-order** is cleared.
- If **scheduler-sort-primary-order** changes from **fifo** to a value other than **fifo**, **scheduler-sort-secondary-order** must be set to some value at the same time on the same command or an error occurs trying to set **scheduler-sort-primary-order**.

scheduler-sort-secondary-order

Identifies which of the schedulers specified by the **schedulers-supported** attribute InfoPrint uses to determine how to break ties produced by the scheduler specified by the **scheduler-sort-primary-order** attribute. For example, if you normally schedule jobs by priority, you can specify that when two jobs have the same priority, InfoPrint should schedule the shorter one first.

GUI label

Secondary scheduler

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Definition</i>
deadline	InfoPrint schedules jobs with the earliest deadline first.
fifo	InfoPrint schedules jobs in the order they are submitted.
job-priority	InfoPrint schedules jobs in order of priority.
longest-job-first	InfoPrint schedules jobs in order of size, longest first.
shortest-job-first	InfoPrint schedules jobs in order of size, shortest first.

Default Value

fifo

Usage Guidelines

The **scheduler-sort-primary-order** and **scheduler-sort-secondary-order** actual destination attributes work together in scheduling jobs and have these interdependencies:

- If **scheduler-sort-primary-order** is set to **fifo**, the **scheduler-sort-secondary-order** is cleared.
- If **scheduler-sort-primary-order** changes from **fifo** to a value other than **fifo**, **scheduler-sort-secondary-order** must be set to some value at the same time on the same command or an error occurs trying to set **scheduler-sort-primary-order**.

schedulers-supported

Identifies the scheduling algorithms that this actual destination supports.

GUI label

Schedulers allowed

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to these fixed values:

<i>Fixed Value</i>	<i>Definition</i>
deadline	InfoPrint schedules jobs with the earliest deadline first.
fifo	InfoPrint schedules jobs in the order they are submitted.
job-priority	InfoPrint schedules jobs in order of priority.
longest-job-first	InfoPrint schedules jobs in order of size, longest first.

<i>Fixed Value</i>	<i>Definition</i>
shortest-job-first	InfoPrint schedules jobs in order of size, shortest first.

Default Values

deadline, fifo, job-priority, longest-job-first, shortest-job-first

screen-frequencies-supported

Use the **halftones-supported** attribute to specify the **screen-frequencies-supported** attribute values. (See “halftones-supported” on page 563 for more information.) The **screen-frequencies-supported** attribute is supported to maintain downward compatibility, but it is not the recommended attribute for specifying screen frequencies for printing halftones.

Identifies the screen frequencies used for printing halftones that this actual destination supports.

DSS

PSF

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- 71
- 85
- 106
- 141

Default Values

71, 85, 106, 141

Usage Guidelines

InfoPrint compares the document attribute **screen-frequency** to this attribute for validation and scheduling.

separator-sheets-supported

Identifies the separator sheets that this actual destination supports.

GUI label

Slip/Separator sheets allowed

DSS

AIX, PSF

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values. For PSF only, you can enter a string up to 255 characters long that contains identifiers of auxiliary-sheet objects.

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
accounting-log	PSF	This value is technically valid, but should not be used for separator sheets.
blank	PSF	The separator sheet is blank.
brief	PSF	The separator sheet style is brief.
full	PSF	The separator sheet style is full.
job-ticket	PSF	The job ticket is printed on the separator sheet.
none	AIX and PSF	No separator sheet prints.
64xx	PSF	The separator sheet style is for the 64xx and 6500 printers.

Default Values

AIX **none**

PSF **accounting-log, blank, brief, full, job-ticket, none, 64xx**, and the names of other defined auxiliary sheets which have legal PSF auxiliary sheet attributes.

Usage Guidelines

- PSF actual destinations can use auxiliary-sheet objects if they have valid **psf-exit-xxx** values. AIX actual destinations print start and end sheets, but they do not use auxiliary-sheet objects.
- Because AIX actual destinations do not print separator sheets, the only valid value for them is **none**.
- InfoPrint verifies that the value of the **printer-separator-sheet** attribute is a value of this attribute.
- You cannot delete a value from this attribute if the value you want to delete is the value of the **printer-separator-sheet** attribute.
- For PSF actual destinations, InfoPrint sets this value dynamically to the names of all defined auxiliary sheets with legal attributes. You should never have to reset this value.

shared-printer-name

Specifies the names of the InfoPrint gateway shared printer, if any, that forwards jobs to this destination.

GUI label

Shared gateway printer

DSS

All with Windows servers

Type

Resettable, single-valued

Allowed Values

Text name of a gateway shared printer.

Default Values

Derived from the actual destination name if the server's **auto-create-shared-printers** attribute is **true**; otherwise, no default.

Usage Guidelines

The **shared-printer-name** is automatically set when the gateway printers are automatically created.

sides

Indicates whether the printer device prints on one or two sides of the media.

GUI label

Sides to print

DSS

PSF, InfoPrint 2000, Passthrough

Type

Resettable, single-valued

Allowed Values

You can enter an integer value of 1 or 2.

Default Values

PSF 1

InfoPrint 2000
2

Passthrough
1

Usage Guidelines

- The value of the **sides** attribute must be one of the values of the **sides-supported** attribute.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- InfoPrint uses sides specifications in this order:
 1. The **sides** document attribute unless you specify different values for this attribute for each document in a job and also specify a value for the **form-definition** document attribute. In that case, InfoPrint ignores the **sides** document attribute.
 2. The sides specification in the document or default document form definition.
 3. The sides specification in the actual destination form definition.
 4. The **sides** actual destination attribute.

Note: Because all supplied form definitions contain a sides specification, the **sides** actual destination attribute is used only with custom form definitions that do not contain a sides specification.

- When working with the IPP or Passthrough DSSs, set the **sides** attribute to the default duplexing value set on the printer.

sides-supported

Indicates whether this actual destination supports printing on one or two sides of the media.

GUI label

Sides allowed

DSS

AIX, BSD, PSF, InfoPrint 2000, Passthrough

Type

Resettable, multi-valued

Allowed Values

You can enter an integer of 1 or 2.

Default Values

With AIX, PSF, and BSD, if SNMP communication is active, InfoPrint queries the printer device and sets the values according to the response; otherwise, the default follows:

AIX 1

BSD No default value

PSF (when created with the Standard or Basic (InfoPrint Manager Administration GUI)

1, 2

Passthrough

1

Usage Guidelines

- You can use this attribute to restrict jobs sent to this actual destination according to the capacity of the output device or your policy for output device use.
- InfoPrint compares the document attribute **sides** to this attribute for scheduling.
- The InfoPrint Manager server can automatically set the value for **sides-supported** for an SNMP printer **only** if you do **not** explicitly set the attribute when creating or modifying the actual destination or if you reset the attribute to the InfoPrint Manager default.

snmp-active

Indicates whether InfoPrint has established Simple Network Management Protocol (SNMP) communications with the output device that this actual destination represents.

GUI label

SNMP is active

DSS

AIX, BSD, PSF, IPP, Passthrough

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- **true**
- **false**

Default Value

If you have defined a value for the **destination-tcpip-internet-address** attribute and InfoPrint has established SNMP communication with the printer device, **true**; otherwise **false**.

snmp-community-name

Specifies the name of the SNMP community to which the printer device that this actual destination represents belongs.

GUI label

Community name

DSS

AIX, BSD, PSF, IPP, Passthrough

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains the SNMP community name.

Default Value

public

Usage Guidelines

If the value of the `use-snmp` attribute is `false`, this attribute is ignored.

snmp-device-conditions

Identifies any conditions reported by SNMP for the printer associated with an actual destination.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets and updates the values to one or more of these items that represent the device's conditions:

- `cover-open`
- `fuser-over-temp`
- `fuser-under-temp`
- `input-tray-empty`
- `input-tray-missing`
- `interlock-open`
- `marker-supply-empty`
- `marker-supply-low`
- `marker-supply-missing`
- `marker-waste-almost-full`
- `marker-waste-full`
- `media-empty`
- `media-low`
- `media-missing`
- `moving-offline`
- `moving-online`
- `offline`

- **output-bin-full**
- **output-bin-missing**
- **output-bin-near-full**
- **paper-jam**
- **power-off**
- **service-requested**
- **warmup**

Default Value

No default value

Usage Guidelines

- InfoPrint Manager uses this attribute only when SNMP communications is active for the printer device (**snmp-active = true**).
- Depending on the device, only a subset of the possible conditions might be reported.

snmp-retry-count

The **snmp-retry-count** and **snmp-timeout** attributes are used when an SNMP request sent to a particular printer fails. The SNMP request can fail, for example, if there is a network problem. See the **snmp-normal-poll-interval** and **snmp-problem-poll-interval** server attributes for more information about the periodic polling of normal and problem SNMP printers.

Because the server performs periodic polling of all SNMP printers, the **snmp-retry-count** and **snmp-timeout attributes** should be left as the default (small) values. A large number of retries over an extended timeout period are not necessary because the SNMP printer will be contacted again when the next periodic polling of all SNMP printers happens. Large **snmp-retry-count** and **snmp-timeout attributes** values can unnecessarily increase the amount of time required to complete the polling of all the SNMP printers

GUI label

Number of times to retry

DSS

AIX, BSD, PSF, IPP, Passthrough

Type

Resettable, single-valued

Allowed Values

You can enter an integer. If an SNMP request cannot be resolved using a couple of retries, it cannot be resolved. Therefore, it doesn't accomplish anything to set this at a higher number.

Default Value

2

Usage Guidelines

- Do not change the **snmp-retry-count** attribute unless instructed to do so by InfoPrint Solutions Support.
- If the value of the **use-snmp** attribute is **false**, this attribute is ignored.

snmp-timeout

The **snmp-retry-count** and **snmp-timeout** attributes are used when an SNMP request sent to a particular printer fails. The SNMP request can fail, for example, if there is a network problem. See the **snmp-normal-poll-interval** and **snmp-problem-poll-interval** server attributes for more information about the periodic polling of normal and problem SNMP printers.

Because the server performs periodic polling of all SNMP printers, the **snmp-retry-count** and **snmp-timeout attributes** should be left as the default (small) values. A large number of retries over an extended timeout period are not necessary because the SNMP printer will be contacted again when the next periodic polling of all SNMP printers happens. Large **snmp-retry-count** and **snmp-timeout attributes** values can unnecessarily increase the amount of time required to complete the polling of all the SNMP printers

GUI label

Timeout (sec)

DSS

AIX, BSD, PSF, IPP, Passthrough

Type

Resettable, single-valued

Allowed Values

You can enter an integer. If an SNMP request cannot be resolved using a couple of retries, it cannot be resolved. Therefore, it doesn't accomplish anything to set this at a higher number.

Default Value

5

Usage Guidelines

- Do not change the **snmp-timeout** attribute unless instructed to do so by InfoPrint Solutions Support.
- Set a value of **0** to use the SNMP default timeout period.
- If the value of the **use-snmp** attribute is **false**, this attribute is ignored.

snmp-write-community-name

Specifies the name of the SNMP write community to which the printer device that this actual destination represents belongs.

GUI label

Write community name

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 255 characters long that contains the SNMP write community name.

Default Value

No default value

Usage Guidelines

- If the value of the **use-snmp** attribute is **false**, this attribute is ignored.
- You must have write permission to the actual destination to view the value of this attribute.
- This attribute must be set to perform the set and execute device management commands. See “pddeviceop command: perform device operation on device associated with specified actual destination” on page 47 for more information about execute operations, and see “pdset command: defines attribute values” on page 122 more information about device set operations.

start-message-supported

Indicates whether the actual destination supports the job attribute **job-start-message**.

GUI label

Send job start message

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- When you set this attribute value to **true**, operators can receive messages that users specify with the **job-start-message** job attribute when they submit the job. InfoPrint sends the message to the operators specified by the **notify-operator** attribute for this actual destination when the job starts printing. Sending a start message does not stop the job from printing; normally the job prints without operator intervention.
- InfoPrint compares the job attribute **job-start-message** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

start-sheets-supported

Identifies the start sheets that this actual destination supports.

GUI label

Start sheets allowed

DSS

AIX, PSF, IPP, Passthrough

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values. For PSF only, you can enter a string up to 255 characters long that contains identifiers of auxiliary-sheet objects.

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
accounting-log	PSF	This value is technically valid, but should not be used for start sheets.
blank	PSF	The start sheet is blank.
brief	AIX, PSF, IPP, Passthrough	The start sheet style is brief.
full	AIX, PSF, IPP, Passthrough	The start sheet style is full.
job-ticket	PSF	The job ticket is printed on the start sheet.

<i>Fixed Value</i>	<i>DSS</i>	<i>Explanation</i>
none	AIX, PSF, IPP, Passthrough	No start sheet prints.
64xx	PSF	The start sheet style is for the 64xx and 6500 printers.

Default Values

AIX, IPP, Passthrough
brief, full, none

PSF accounting-log, blank, brief, full, job-ticket, none, 64xx, and the names of other defined auxiliary sheets which have legal PSF auxiliary sheet attributes.

PSF created with Basic InfoPrint Manager Administration GUI
job-ticket

Usage Guidelines

- PSF actual destinations can use auxiliary-sheet objects if they have valid **psf-exit-xxx** values. AIX actual destinations print start and end sheets, but they do not use auxiliary-sheet objects.
- InfoPrint verifies that the value of the **printer-start-sheet** attribute is a value of this attribute.
- You cannot delete a value from this attribute if the value you want to delete is the value of the **printer-start-sheet** attribute.
- For PSF actual destinations, InfoPrint sets this value dynamically to the names of all defined auxiliary sheets with legal attributes. You should never have to reset this value.

table-reference-characters-supported

Indicates whether this actual destination supports table reference characters. Some line-data applications produce table reference characters to specify font changes.

GUI label

Table reference characters allowed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- InfoPrint compares the document attribute **table-reference-characters** to this attribute for scheduling.
- You can use this attribute to restrict use of this actual destination.

timeout-period

See **printer-timeout-period**.

transform-sequence

Specifies a list of names of transform objects that make up the transform sequence for this actual destination. The order of the values in this attribute determines the order that the transforms are run.

GUI label

Transforms to use

DSS

All

Type

Resettable, multi-valued

Allowed Values

Names of the transform objects.

Default Values

None.

use-snmp

Indicates whether InfoPrint should try SNMP communication with the output device that this actual destination represents.

GUI label

Use SNMP

DSS

AIX, BSD, PSF, IPP, Passthrough

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

If InfoPrint fails to establish SNMP contact with an output device, it uses the **ping** command to test whether it is possible to communicate with the device in other ways. If the **ping** command succeeds, InfoPrint concludes that the device is not an SNMP device and resets this attribute to **false**.

wait-for-job-completion

Indicates whether InfoPrint Manager for AIX waits for the job to print completely before reporting the job as completed or reports the job as completed as soon as all the data has been sent to the printer.

GUI label

Report job completed when printed

DSS

AIX, PSF Other-Driver on AIX

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Note: If your physical printer has a time-out setting, make sure it is disabled when you specify **True** or **Yes** for **wait-for-job-completion**.

Default Value

true when the printer and backend support PJI USTATUS; or **false** when the printer or the backend do not support PJI USTATUS.

Usage Guidelines

- This attribute can be used to activate or deactivate reporting of job completion.

Note: There is a new backend program called `pioinfo` for use with printers that can be used in place of the `piojetd` backend program. For example, **destination-command=/usr/lpd/pio/etc/pioinfo ip_address**, where `ip_address` is the ip address of the printer.

- There is a performance trade-off when you use this attribute: if you choose **true**, your printer performance might be reduced slightly; and when you choose **false**, the job completion messages might be premature or inaccurate.
- The `pioibmdpm` backend obtains status from the InfoPrint 2085 or InfoPrint 2105 job MIB. InfoPrint Manager passes the printer the values on the **snmp-community-name**, **snmp-retry-count**, **snmp-timeout**, and **wait-for-job-completion-snmp-timeout** attributes to use when it is obtaining status through SNMP.
- The `pioibmnpm`, `pioinfo`, and `pioipdf` backends obtain status from the printer through the PJI commands.
- For more information about using **wait-for-job-completion**, see “Accurate job completion in the AIX DSS” in the *InfoPrint Manager for AIX: Getting Started*.

wait-for-job-completion-snmp-timeout

Used with the **wait-for-job-completion** attribute and a destination command (backend) that is capable of using SNMP to monitor the job. The value specified tells the backend how long to wait after the printer has started accepting the job before giving up on finding an entry for the job in the printer’s SNMP job MIB. The **wait-for-job-completion-snmp-timeout** attribute is used only when all of these events occur together:

- When the AIX DSS or the PSF other-driver DSS is using `pioibmdpm` as the destination command
- When the **wait-for-job-completion** attribute is true
- When the physical printer being driven is an InfoPrint 2085 or InfoPrint 2105.

GUI label

Report job completed when printed timeout (sec)

DSS

AIX, PSF Other-Driver on AIX

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

300 seconds (5 minutes)

Usage Guidelines

- If one InfoPrint Manager server is not the only source of jobs for the printer, it might be necessary to increase this value.
- If jobs print but InfoPrint Manager indicates a failure, it might be necessary to increase this value.

warning-message

Provides information about printer device conditions that require attention but allow printing to continue, such as low paper or low toner.

GUI label

Warning message

DSS

AIX, BSD, PSF, IPP, Passthrough

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to a text string that contains the message information.

Default Value

No default value

Usage Guidelines

InfoPrint uses this attribute only when SNMP communication is active with the printer device.

x-image-shift-range-supported

Specifies, in millimeters, the lower and upper numeric boundaries for the X offset of a page. The X offset, along with the Y offset, sets the origin of the logical page on the physical page.

GUI label

Move image right (inches) or (mm)

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Separate values with colons, for example,
1:10

Components

- **lower-limit**

Defines the minimum amount of image shift that you can specify with the document or default document attribute **x-image-shift** or **x-image-shift-back**.

- *Type*

- Single-valued

- *Allowed Values*

- You can enter a numeric value from -2147483647 through 577.97 mm. The unit of measure is millimeters.

- *Default Value*

- 0**

- **upper-limit**

Defines the maximum amount of image shift that you can specify with the document or default document attribute **x-image-shift** or **x-image-shift-back**.

- *Type*

- Single-valued

- *Allowed Values*

- You can enter a numeric value from -2147483647 through 577.97 mm. The unit of measure is millimeters.

- *Default Value*

- 577.97 mm**

Usage Guidelines

- InfoPrint compares the document attributes **x-image-shift** and **x-image-shift-back** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

xsl-style-sheet

Identifies the file name of the XSL style sheet used for the XML document. This name can contain full path information, URL information, or just the file name. If you only specify the file name, InfoPrint Manager uses the path specified on the document's **resource-context** attribute to locate the file. When you specify a file name, the XSL style sheet must be located on the server where the **xml2afp** or **xml2pdf** transform runs.

GUI label

XSL style sheet

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Settable, single-valued, per-document

Allowed Values

You can enter a text string of up to 4095 characters that contains the XSL style sheet information.

You can specify a value of **none** to indicate that a style sheet should be suppressed because it has been specified with XSL-FO data.

Default Value

No default value

Usage Guidelines

- If an XSL style sheet is specified on either the document or actual destination attribute, it is used to process the XML file that was submitted, even if the file was already XSL-FO.
- If you don't specify an XSL style sheet with the **xsl-style-sheet** document/default document attribute, InfoPrint Manager uses the XSL style sheet that you specify with the **xsl-style-sheet** actual destination attribute.
- InfoPrint Manager does not provide a default XSL style sheet.

y-image-shift-range-supported

Specifies, in millimeters, the lower and upper numeric boundaries for the Y offset of a page. The Y offset, along with the X offset, sets the origin of the logical page on the physical page.

GUI label

Move image down (inches) or (mm)

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Separate values with colons, for example,
1:20

Components

- **lower-limit**

Defines the minimum amount of image shift that you can specify with the document or default document attribute **y-image-shift** or **y-image-shift-back**.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from -2147483647 through 577.97 mm. The unit of measure is millimeters.

- *Default Value*

0

- **upper-limit**

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from -2147483647 through 577.97 mm. The unit of measure is millimeters.

- *Default Value*

577.97 mm

Usage Guidelines

- InfoPrint compares the document attributes **y-image-shift** and **y-image-shift-back** to this attribute for validation and scheduling.
- You can use this attribute to restrict use of this actual destination.

Attributes for auxiliary-sheet objects

An auxiliary-sheet object represents:

- An auxiliary sheet that prints with a job sent to a PSF actual destination
- An exit program that generates information about the job for printing on an auxiliary sheet or writing to an accounting log or an audit log

An auxiliary sheet is a sheet of paper that prints at the beginning or end of output, or separating different parts of the output. The auxiliary sheet can have information printed on it identifying the output or can be blank.

The PSF DSS uses the names of auxiliary-sheet objects as values for actual destination attributes, such as **accounting-exit**, **audit-exit**, **start-sheets-supported**, and **printer-start-sheet**. The Generalized Fax DSS and email DSS use the names of auxiliary-sheet objects as values for the **accounting-exit** and **audit-exit** actual destination attributes. AIX actual destinations print start and end sheets, but they do not use auxiliary-sheet objects.

Initially settable attribute listing

There are no initially settable attributes for auxiliary-sheet objects.

Resettable attribute listing

You can set these attributes with the **pdcreate** command when you create an auxiliary-sheet object or you can modify them with the **pdset** command after you create the object.

- **descriptor**
- **psf-exit-form-definition**
- **psf-exit-page-mark**
- **psf-exit-program-name**
- **psf-post-print-accounting-program-name**

associated-server

Indicates the name of the server where this auxiliary sheet is located in.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value when you create an auxiliary sheet for a given server. InfoPrint assigns the *ServerName* portion of the argument from the **pdcreate** command used to create this auxiliary sheet object.

Default Value

No default value

auxiliary-sheet-identifier

Identifies the auxiliary sheet ID.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value when you create an auxiliary sheet for a given server. InfoPrint sets this value to the *AuxiliarySheet* portion of the argument used with the **pdcreate** command when this auxiliary sheet object was created. The value of this attribute must be unique in the server.

Default Value

No default value

descriptor

Provides a description of this auxiliary sheet.

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that describes this auxiliary sheet.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description of this auxiliary sheet might be useful to other users or to someone who needs to modify its contents.

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **auxiliary-sheet**.

Default Value

auxiliary-sheet

psf-exit-form-definition

Sets the form definition to use when printing this auxiliary sheet.

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 8 characters that contains the name of the form definition. See Appendix D, "Form definitions and page definitions supplied with InfoPrint," on page 1043 for a list of available form definitions.

Default Value

No default value

Usage Guidelines

A form definition defines the placement of the data on the auxiliary sheet and other formatting information, such as a printer device bin number. You can use the form definition to select a bin for the auxiliary sheet that is different from the bin used for jobs. For example, you can print auxiliary sheets on a different colored paper than used for the jobs.

psf-exit-page-mark

Specifies whether you want page marks (black marks at the extreme edge of the page used for sorting) to print on this auxiliary sheet.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
false	no
true	yes

Default Value

No default value

Usage Guidelines

Page marks are useful for printer devices that cannot perform offset stacking, such as continuous form printers. The marks allow printer operators to see the boundaries of jobs.

psf-exit-program-name

Sets the name of the exit program used to generate this auxiliary sheet.

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that contains a name of a user exit program, an empty string, or no value.

Names of some user exit programs that you can use with AIX

- *Accounting*
`/usr/lpp/psf/bin/ainuxacc2`
Full style

- /usr/lpp/psf/bin/ainuxacc**
Brief style
- /usr/lpp/psf/bin/ainuxaccp**
Job ticket
- /usr/lpp/psf/bin/ainacclog**
Log
- *Auditing*
 - /usr/lpp/psf/bin/ainuxaud2**
Full style
 - /usr/lpp/psf/bin/ainuxaud**
Brief style
 - /usr/lpp/psf/bin/ainuxaudp**
Job ticket
 - /usr/lpp/psf/bin/ainaudlog**
Log
- *Start Sheets*
 - /usr/lpp/psf/bin/ainuxhdr2**
Full style
 - /usr/lpp/psf/bin/ainuxhdr**
Brief style
 - /usr/lpp/psf/bin/ainuxhdrp**
Job ticket
 - /usr/lpp/psf/bin/ainuxhdrx**
Start sheet without vertical lines for 64xx and 6500 printers
 - /usr/lpp/psf/bin/pduxblkh**
Blank
- *Separator Sheets*
 - /usr/lpp/psf/bin/ainuxsep2**
Full style
 - /usr/lpp/psf/bin/ainuxsep**
Brief style
 - /usr/lpp/psf/bin/ainuxsepp**
Job ticket
 - /usr/lpp/psf/bin/ainuxsepx**
Separator sheet without vertical lines for 64xx and 6500 printers
 - /usr/lpp/psf/bin/pduxblks**
Blank
- *End Sheets*
 - /usr/lpp/psf/bin/ainuxtlr2**
Full style
 - /usr/lpp/psf/bin/ainuxtlr**
Brief style
 - /usr/lpp/psf/bin/ainuxtlrp**
Job ticket

/usr/lpp/psf/bin/ainuxlrx

End sheet without vertical lines for 64xx and 6500 printers

/usr/lpp/psf/bin/pduxblkt

Blank

- *Input Data*

/usr/lpp/psf/bin/ainuxind

This example does not perform any tasks. Use it as a model for writing your own user exit program.

- *Output Data*

/usr/lpp/psf/bin/ainuxout

This example does not perform any tasks. Use it as a model for writing your own user exit program.

Names of some user exit programs that you can use with Windows: In these names, *install_path* indicates the path where you installed InfoPrint Manager for Windows:

- *Accounting*

install_path\bin\ainuxacc2

Full style

install_path\bin\ainuxacc

Brief style

install_path\bin\ainuxaccp

Job ticket

install_path\bin\ainacclog

Log

- *Auditing*

install_path\bin\ainuxaud2

Full style

install_path\bin\ainuxaud

Brief style

install_path\bin\ainuxaudp

Job ticket

install_path\bin\ainaudlog

Log

- *Start Sheets*

install_path\bin\ainuxhdr2

Full style

install_path\bin\ainuxhdr

Brief style

install_path\bin\ainuxhdrp

Job ticket

install_path\bin\ainuxhdrx

Start sheet without vertical lines

install_path\bin\pduxblkh

Blank

- *Separator Sheets*

install_path\bin\ainuxsep2
Full style

install_path\bin\ainuxsep
Brief style

install_path\bin\ainuxsepp
Job ticket

install_path\bin\ainuxsepx
Separator sheet without vertical lines

install_path\bin\pduxblks
Blank

- *End Sheets*

install_path\bin\ainuxtlr2
Full style

install_path\bin\ainuxtlr
Brief style

install_path\bin\ainuxtlrp
Job ticket

install_path\bin\ainuxtlrx
End sheet without vertical lines

install_path\bin\pduxblkt
Blank

- *Input Data*

install_path\bin\ainuxind
This example does not perform any tasks. Use it as a model for writing your own user exit program.

- *Output Data*

install_path\bin\ainuxout
This example does not perform any tasks. Use it as a model for writing your own user exit program.

Default Value

No default value

Usage Guidelines

- If the attribute has:

No value

The auxiliary sheet does not print.

An empty string ("")

InfoPrint uses the default user exit program:

Accounting

For AIX, */usr/lpp/psf/bin/ainacclog*; for Windows, *install_path*\bin\ainacclog

Audit No default program

Start sheet

For AIX, */usr/lpp/psf/bin/ainuxhdr*; for Windows, *install_path*\bin\ainuxhdr

Separator sheet

No default program

End sheet

No default program

Input data

No default program

Output data

No default program

Any other value

InfoPrint uses the specified user exit program to generate auxiliary sheets.

- While you can specify only one user exit program as a value for this attribute, the default auxiliary-sheet objects can invoke any of a set of user exit programs. For example with AIX, the **brief** default auxiliary-sheet object invokes **/usr/lpp/psf/bin/ainuxacc** for accounting exits, **/usr/lpp/psf/bin/ainuxaud** for audit exits, **/usr/lpp/psf/bin/ainuxhdr** for start sheets, **/usr/lpp/psf/bin/ainuxsep** for separator sheets, and **/usr/lpp/psf/bin/ainuxtlr** for end sheets. For example with Windows, the **brief** default auxiliary-sheet object invokes *install_path\bin\ainuxacc* for accounting exits, *install_path\bin\ainuxaud* for audit exits, *\bin\ainuxhdr* for start sheets, *install_path\bin\ainuxsep* for separator sheets, and *install_path\bin\ainuxtlr* for end sheets.
- You can use the **psf-exit-program-name** auxiliary sheet attribute and the **psf-post-print-accounting-program-name** auxiliary sheet attribute together, but InfoPrint Manager for AIX and InfoPrint Manager for Windows come with **psf-post-print-accounting-program-name** set to the allowed value for the **psf-post-print-accounting-program-name** auxiliary sheet attribute.

psf-post-print-accounting-program-name

Specifies the name of the **psf-post-print-accounting-program-name** accounting exit that is invoked after each job has completed. InfoPrint Manager calls this accounting exit when a PSF IPDS printer reports that all of the pages sent for a job have been stacked. This includes a partial job and also any extra pages produced as a result of a backspace or other recovery. One and only one record is written for each job submission. If InfoPrint Manager does not get positive feedback from the printer that all pages have stacked, no record is written.

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 255 characters that contains the name of the **psf-post-print-accounting-program-name** accounting exit that is invoked after each job has completed.

InfoPrint Manager supplies this sample **psf-post-print-accounting-program-name** accounting exit:

AIX **/usr/lpp/psf/bin/ainuxjobcompletion**

Windows

install_path\bin\ainuxjobcompletion, where *install_path* indicates the path where you installed InfoPrint Manager for Windows

Default Value

No default value

Usage Guidelines

- You can use the **psf-post-print-accounting-program-name** auxiliary sheet attribute and the **psf-exit-program-name** auxiliary sheet attribute, but InfoPrint Manager for AIX and InfoPrint Manager for Windows come with **psf-post-print-accounting-program-name** set to the allowed value for the **psf-post-print-accounting-program-name** auxiliary sheet attribute.
- InfoPrint Manager supplies one sample **psf-post-print-accounting-program-name** program:

AIX /usr/lpp/psf/bin/ainuxjobcompletion

Windows

install_path\bin\ainuxjobcompletion

Attributes for documents and default documents

This section contains the attributes for both documents and default documents.

Document

An InfoPrint document represents 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. A document in a job can contain printable data or a resource that is not printable by itself.

Default document

Use default documents to set default values for document attributes.

Default documents contain two types of attributes:

- Attributes that describe the default document itself
- Attributes that you can set as default values for document attributes

Attributes not displayed in the InfoPrint Manager Administration GUI

While all document and default document attributes and attribute values are supported for both standard and basic InfoPrint installations, neither InfoPrint Manager Administration GUI displays a complete set.

- The standard InfoPrint Manager Administration GUI displays most attributes and attribute values of greatest interest to Data Center (Production Printing) InfoPrint administrators, but omits a few that are used primarily in basic InfoPrint installations.

- The basicInfoPrint Manager Administration GUI displays only the attributes of greatest interest to Print on Demand (Commercial Printing) InfoPrint administrators.

You can list the values of attributes not displayed in the InfoPrint Manager Administration GUI using the **pdls** command or the **pdq** command. You can set the values of initially settable and resettable attributes using the **pdcreate** command or the **pdpr** command. You can change the values of resettable attributes using the **pdmod** command or the **pdset** command.

Initially settable attribute listing

You can set these attributes with the **pdpr** command when you create a document.

- **document-file-name**
- **document-type**
- **initial-value-document**
- **transfer-method**

There are no initially settable attributes for default documents.

Resettable attribute listing

You can set these attributes with the **pdpr** command when you create a document or with the **pdcreate** command when you create a default document. You can modify them with the **pdset** command after you create the document or the default document. You can also modify them for the document using the **pdmod** command.

- **account-text**
- **address1-text**
- **address2-text**
- **address3-text**
- **address4-text**
- **base-printer**
- **building-text**
- **callback-number**
- **carriage-control-type**
- **chars**
- **class**
- **color-bits-per-plane**
- **color-mapping-table**
- **color-profile**
- **color-rendering-intent**
- **color-toner-saver**
- **content-orientation**
- **convert-to-ebcdic**
- **copy-count**
- **data-fidelity-problem-reported**
- **default-character-mapping**
- **default-input-tray**

- **default-medium**
- **default-printer-resolution**
- **department-text**
- **descriptor** (default document only)
- **destination-company-text**
- **destination-pass-through**
- **document-comment**
- **document-finishing**
- **document-format**
- **email-from-address**
- **email-to-address**
- **fax-number**
- **fax-to-name**
- **font-fidelity-action**
- **font-processing-messages**
- **font-resolution**
- **form-definition**
- **form-length**
- **halftone**
- **image-fit**
- **image-length**
- **image-out-format**
- **image-width**
- **input-color-management-resources**
- **input-exit**
- **input-tray-select**
- **jde-jdl**
- **job-terminate-message-count**
- **list-of-managers** (default document only)
- **maximum-messages-printed**
- **maximum-transform-pages-ahead**
- **message** (default document only)
- **mvs-destination**
- **mvs-forms**
- **mvs-segment-id**
- **name-text**
- **new-line-option**
- **new-line-option-data-encoding**
- **node-id-text**
- **number-up**
- **originating-company-text**
- **other-transform-options**
- **output-appearance**
- **output-bin**
- **output-color-management-resource**

- **output-color-management-resource-inline**
- **output-color-management-resource-tag**
- **output-format**
- **overlay**
- **overlay-back**
- **overlay-front**
- **page-count** (document only)
- **page-definition**
- **page-media-select**
- **page-select** (document only)
- **plex**
- **print-quality**
- **programmer-text**
- **resource-context**
- **resource-context-font**
- **resource-context-form-definition**
- **resource-context-overlay**
- **resource-context-page-definition**
- **resource-context-page-segment**
- **resource-context-presentation-object-container**
- **resource-context-user**
- **resource-exit**
- **reverse-page-order**
- **room-text**
- **scanner-correction**
- **screen-frequency**
- **segment-file-size**
- **shared-formdef**
- **shift-out-shift-in**
- **sides**
- **start-on-new-sheet**
- **subject-text**
- **table-reference-characters**
- **title-text**
- **transform-message-file-name**
- **transform-output-file-name**
- **user-id-text**
- **x-image-shift**
- **x-image-shift-back**
- **y-image-shift**
- **y-image-shift-back**

Per-document attribute listing

These attributes can have a different value for each document in a job. For initially settable and resettable per-document attributes, you can specify a different value

for each document in a job using the **pdpr** command. Specify **-x** "*AttributeName=value*" before the name of each file.

For example, to print a job consisting of two documents, one with an estimated size of 10 pages and the other with an estimated size of 15 pages, enter:

```
pdpr -x "page-count=10" -f File1 -x "page-count=15" File2
```

Note: All documents in a job must have the same value for all initially settable and resettable attributes if the documents are in ASCII format.

<i>Initially Settable</i>	<i>Resettable</i>	<i>Non-Settable</i>
document-type	carriage-control-type chars content-orientation convert-to-ebcdic copy-count default-input-tray default-medium document-finishing document-format explicit-page-placement form-length image-fit image-length image-out-format image-width input-exit jde-jdl medium-map-name new-line-option new-line-option-data-encoding other-transform-options output-appearance output-bin page-count page-definition page-select plex print-quality resource-context-page-definition resource-context-presentation-object-containers resource-context-user resource-exit sides scanner-correction screen-frequency 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	document-content document-content-list document-sequence-number initial-value-document octet-count

All other document attributes are per-job attributes. They must have the same value for each document in the job.

account-text

Specifies account information that InfoPrint prints in the **ACCOUNT:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object or in a user-defined customizable field when used with the Generalized Fax DSS.

GUI label

Account

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the account information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the text string you supply to 20 characters or less to make sure that there is enough room available on the printed page for all of the account information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

address1-text

Specifies address information that InfoPrint prints on the first line of the **ADDRESS:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object or in a user-defined customizable field when used with the Generalized Fax DSS.

GUI label

Address line 1

DSS

PSF, Generalized Fax, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the address information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 57 characters or less to make sure that there is enough room available on the printed page for all address information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

address2-text

Specifies address information that InfoPrint prints on the second line of the **ADDRESS:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object or in a user-defined customizable field when used with the Generalized Fax DSS.

GUI label

Address line 2

DSS

PSF, Generalized Fax, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the address information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 57 characters or less to make sure that there is enough room available on the printed page for all address information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

address3-text

Specifies address information that InfoPrint prints on the third line of the **ADDRESS:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object or in a user-defined customizable field when used with the Generalized Fax DSS.

GUI label

Address line 3

DSS

PSF, Generalized Fax, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the address information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 57 characters or less to make sure that there is enough room available on the printed page for all address information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

address4-text

Specifies address information that InfoPrint prints on the fourth line of the **ADDRESS:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object or in a user-defined customizable field when used with the Generalized Fax DSS.

GUI label

Address line 4

DSS

PSF, Generalized Fax, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the address information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 57 characters or less to make sure that there is enough room available on the printed page for all address information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

associated-server (Default Document Only)

Indicates the name of the server in which this default document is located in.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *ServerName*: portion of the argument used with the `pdcreate` command when this default document is created.

Default Value

No default value

base-printer

Indicates the printer model you want to RIP the document for.

GUI label

RIP for

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

- **InfoPrint Color 100AFP**
- **InfoPrint Color 130 Plus**
- **InfoPrint 20**
- **InfoPrint 21**
- **InfoPrint 32**
- **InfoPrint 40**
- **InfoPrint 45**
- **InfoPrint 60**
- **InfoPrint 70**
- **InfoPrint 75**
- **InfoPrint 100**
- **InfoPrint Pro C900AFP**
- **InfoPrint 1120**
- **InfoPrint 1125**
- **InfoPrint 1130**
- **InfoPrint 1140**
- **InfoPrint 1145**
- **InfoPrint 1226**
- **InfoPrint 1332**
- **InfoPrint 1352**
- **InfoPrint 1372**
- **InfoPrint 2000**
- **InfoPrint 2000AFP**
- **InfoPrint 2060ES**
- **InfoPrint 2075ES**
- **InfoPrint 2085**
- **InfoPrint 2090ES**
- **InfoPrint 2105**
- **InfoPrint 2105ES**
- **InfoPrint 2190**
- **InfoPrint 2210**
- **InfoPrint 2235**
- **InfoPrint 3000**
- **InfoPrint 4000**
- **InfoPrint 4000-ID5-ID6**
- **InfoPrint 4000-IR3-IR4**
- **InfoPrint 4100-HD1-HD2**
- **InfoPrint 4100-HD3-HD4**
- **InfoPrint 4100-HD5-HD6**
- **InfoPrint 4100-HS1**
- **InfoPrint 4100-HS2**
- **InfoPrint 4100-HS3**

- InfoPrint 4100-MD1/2
- InfoPrint 4100-MS1
- InfoPrint 4100-PD1-PD2
- InfoPrint 4100-PS1
- InfoPrint 5000-AS1
- InfoPrint 5000-AS3
- InfoPrint 5000-AD1-AD2
- InfoPrint 5000-AD3-AD4
- InfoPrint SP 8200 DN1

Default Value

The value of the **printer-model** attribute for the actual destination where the document prints.

Usage Guidelines

You can RIP a document for a different printer than you actually print it on. This is useful for printing proof documents.

building-text

Specifies the physical building information that InfoPrint prints in the **BUILDING:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Building

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the building information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 24 characters or less to make sure that there is enough room available on the printed page for all building information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

callback-number

Specifies the callback telephone number that appears on the cover sheet of a fax job in a user-defined customizable field.

DSS

Generalized Fax

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4096 characters long that contains the telephone number.

Default Value

No default value

carriage-control-type

Identifies the type of carriage control characters that the printer device uses when interpreting and printing this document.

GUI label

Type of carriage control characters

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

- **ansi-ascii**
- **ansi-ebcdic**
- **machine**
- **none**

Default Value

none

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **carriage-control-types-supported**.

- This attribute is valid only for line-data documents.

chars

Identifies from zero to four coded fonts used to print a line-data document.

Coded fonts are character set and code page pairs. Coded font names begin with a two-character prefix (X0 or XZ), followed by up to four alphanumeric characters. X042B2 is an example of a coded font name.

GUI label

Fonts

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, multi-valued, per-document

Allowed Values

You can enter a text string that contains the name or global ID of the fonts. The name of each font can be one to four characters long. Omit the two-character prefix from the coded font name or the alternate coded font name.

For the names of coded fonts, see *IBM AFP Fonts: Font Summary*.

If you specify more than one coded font on the command line, separate the font names by spaces and surround the attribute and value with double quotation marks, for example:

```
"chars=GT10 GT12"
```

If you specify more than one coded font in the InfoPrint Manager Administration GUI, separate the font names by commas, for example:

```
GT10,GT12
```

Default Value

No default value

Usage Guidelines

- This attribute is valid only for line-data documents.
- If the page definition does not identify fonts, you must specify fonts with this attribute to print in more than one font.
- If you specify more than one coded font with the **chars** attribute, the file must contain table reference characters and you must specify the **table-reference-characters** attribute value as **true**.
- InfoPrint uses this attribute only if the page definition specifies no coded fonts. If you specify fonts with this attribute and the page definition also specifies fonts, InfoPrint uses the fonts named in the page definition.

class

For jobs originating on host systems and directed to InfoPrint through the OS/390 Download program or the DPF function of InfoPrint Manager for Windows, this attribute contains the value specified for the **class** parameter. The **class** attribute can also be used directly with non-host jobs. InfoPrint can print the class information on an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Class

DSS

All

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a single alphanumeric character. This character is a customer-defined character that represents a set of job/printer configurations to be set up.

Input Synonym

You can use the synonym **mvs-class**.

Default Value

If you do not specify a class value when you submit the job from the host system, the host system defaults the value of the **class** parameter to **A**. However, InfoPrint sets no default for the **class** parameter.

Usage Guidelines

- See the *Print Services Facility for OS/390: OS/390 Download Guide* for further information, including restrictions, on the **class** parameter.
- You can use this attribute in a shell script used with OS/390 Download.
- InfoPrint compares the **class** document attribute with the **classes-ready** actual destination attribute for validation and scheduling.

color-bits-per-plane

Specifies whether the transform is to produce monochrome (fs10) or color images (fs42 or fs45)

GUI label

Color bits per plane

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

- **0-bits** (monochrome FS10)
- **1-bit** (color FS42)
- **8-bits** (color FS45)

Default Value

There is no default value.

Usage Guidelines

- If a document is already ripped, changing this attribute at the printer will not effect the document. To change a ripped document, modify the job and document properties to specify the new value. When released, the document will be re-ripped automatically.

color-mapping-table

Identifies the color mapping table (CMT) to be used when printing this document.

GUI label

Color mapping table

DSS

PSF

Type

Resettable, single-valued, per-job attribute.

Allowed Values

You can enter a text string of up to 8 characters that contains the identification for this resource.

Default Value

There is no default value. If you omit this attribute or it contains no value, InfoPrint uses the color mapping table defined by the actual destination **color-mapping-table** attribute, if any.

color-profile

Specifies that color profile, if any, is to be used by the PostScript transform (**ps2afp**) and the PDF transform (**pdf2afp**).

GUI label

Color profile

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

SWOP

Specifications for Web Offset Publications (SWOP) standard in the United States used for tuning Cyan-Magenta-Yellow-Black (CMYK) color.

Euroscale

European standard used for tuning Cyan-Magenta-Yellow-Black (CMYK) color.

none No color profile.

Default Value

There is no default value.

Usage Guidelines

- If a document is already ripped, changing this attribute at the printer will not effect the document. To change a ripped document, modify the job and document properties to specify the new value. When released, the document will be re-ripped automatically.

color-rendering-intent

Identifies which color rendering dictionary (CRD) can be used by the PostScript RIP and which lookup table (LUT) can be used by the TIFF RIP.

GUI label

Color rendering intent

DSS

PSF

Type

Resettable, single-valued, non-varying

Allowed Values

You can enter one of these fixed values:

Fixed Value	Explanation
relative	When you specify relative , InfoPrint Manager maps in-gamut colors exactly and maps out-of-gamut colors to the closest in-gamut color.
perceptual	When you specify perceptual , InfoPrint Manager maps all colors in such a way as to provide subjectively more pleasing hardcopy output.

Input Synonym

You can use the synonym **color-rendering-intent-colormetrics**.

Default Value

No default value. If you do not specify a value for this attribute, InfoPrint uses the value of the actual destination attribute **color-renderings-intent**.

Usage Guidelines

- For the vast number of colors possible with 32-bit color, an actual destination can only physically render a subset of the possible range of colors, and this range is referred to as the color gamut for the actual destination. When a color is specified in PostScript or TIFF and is then transformed into AFP, the transform needs to map the colors that fall outside of the color gamut for the actual destination into a color in the gamut, so it can be printed with fidelity. The **color rendering intent** attribute specifies which Color Rendering Dictionary (CRD) to use for the PostScript mapping and which Lookup Table (LUT) to use for the TIFF mapping.
- For PostScript, the CRD depends on the value of the **color-toner-saver** attribute.
- For TIFF, the LUT depends on the value of the **color-profile** and **color-toner-saver** attributes.
- This attribute only applies to attachment types of TCP/IP and Upload TCP/IP.
- The color PostScript RIP must be installed to make use of this attribute.
- If this attribute is specified and a pragma setting for the transform is specified through **other-transform-options**, the value in **other-transform-options** takes effect.
- If **color rendering intent** is specified inside the PostScript data stream, that value takes effect regardless of any attribute setting.
- Color rendering intent cannot be specified inside the TIFF/GIF/JPEG data stream.

color-toner-saver

When cyan, magenta, and yellow (cmyk) are combined in a certain proportion, the result approximates black. When the **color-toner-saver** attribute is used, the proportion of cyan, magenta, and yellow are reduced and substituted with black toner, which reduces the amount of color toner used. This option only applies to non-cmyk PostScript (for example, RGB) for which a color rendering dictionary (CRD) is used to determine the cmyk values to use.

GUI label

Color toner saver

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	Input Synonym
true	yes
false	no

With the **color-toner-saver** attribute, a value of **true** or **yes** substitutes black for common cyan, magenta, and yellow components to reduce consumption of toner and to reduce the cost per page; while a value of **false** or **no** uses the cmyk proportions specified.

Default Value

There is no default value.

Usage Guidelines

- If a document is already ripped, changing this attribute at the printer will not effect the document. To change a ripped document, modify the job and document properties to specify the new value. When released, the document will be re-ripped automatically.
- Setting **color-toner-saver** to **True** or **Yes** results in less vibrant process colors.

content-orientation

Identifies the page presentation (the placement of data on a page) for the document.

GUI label

Orientation

DSS

AIX

Type

Resettable, single-valued, per-document

Input Synonym

You can use the synonym **orientation**.

Allowed Values

You can enter one of these fixed values:

- **landscape**
- **portrait**
- **reverse-portrait**
- **reverse-landscape**

Default Value

AIX The first value of the destination attribute **content-orientations-supported**

Usage Guidelines

InfoPrint validates and schedules jobs using this attribute against the destination attribute **content-orientations-supported**.

convert-to-ebcdic

Indicates whether to convert this file from ASCII to EBCDIC before the document prints.

GUI label

Convert to EBCDIC

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **convert-to-ebcdic-supported**.

- This attribute is valid only for line-data documents.

copies

See **copy-count**.

copy-count

Specifies the number of document copies printed per job copy.

GUI label

Copy count

DSS

All

Type

Resettable, single-valued, per-document

Input Synonym

You can use the synonym **copies**.

Allowed Values

You can enter an integer from 1 through 2147483647.

Default Value

1

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **maximum-copies-supported**.
- This attribute is not valid for AFP documents with inline resources. To print multiple copies of these documents, use the *job-copies* component of the **results-profile** job attribute.
- For BSD (by default), this document attribute maps to the **qprt -N** option.
- The **copy-count** document/default document attribute is ignored for **dpf-ipds** requests.

data-fidelity-problem-reported

Indicates the type of data fidelity problems, print-positioning or invalid-character errors, that the destination reports while printing this document.

GUI label

Data fidelity problem reported

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Report</i>
all	Both print-positioning and invalid-character errors
character	Only invalid-character errors
none	No errors
position	Only print-positioning errors

Default Value

none

Usage Guidelines

InfoPrint validates and schedules jobs using this attribute against the destination attribute **data-fidelity-problem-reported-supported**.

default-character-mapping

Defines the character-mapping (codepage) used while printing an ASCII or double-byte character set (DBCS) ASCII document.

GUI label

Default character mapping

DSS

AIX, PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

- **ibm-437**
- **ibm-850**
- **ibm-860**
- **ibm-863**
- **ibm-865**

- **ibm-932**
- **ibm-938** for InfoPrint Manager for AIX only
- **ibm-euccn**
- **ibm-eucjp**
- **ibm-euckr**
- **ibm-euctw**

Default Value

No default value

Usage Guidelines

InfoPrint validates and schedules jobs using this attribute against the destination attribute **character-mappings-supported**.

default-input-tray

Identifies an input-tray on the printer device that contains the medium that InfoPrint uses for normal document pages.

GUI label

Input tray requested

DSS

AIX, PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

For AIX actual destinations, use one of these values:

auto-envelope-feed	top
automatic-tray	tray-1
auxiliary-envelope	tray-2
auxiliary-paper	tray-3
bottom	tray-4
continuous-form-feed	tray-5
current-selected-tray	tray-6
envelope	tray-7
high-capacity-feeder	tray-8
large-capacity	tray-9
manual	tray-10
manual-envelope-feed	capacity-2000-sheet
middle	

For PSF and InfoPrint 2000 actual destinations, you can enter one of these values or any other value that maps to one of the actual destination **psf-tray-characteristics** attribute values.

Default Value

No default value

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **input-trays-supported**.
- For AIX actual destinations, any input tray selection in the data stream or form definition overrides the value you specify for this attribute.
- For PSF actual destinations, the value you specify for this attribute overrides any input tray selection in the data stream or form definition, with one exception. If you specify different values for this attribute for each document in a job, and also specify a value for the document **form-definition** attribute, InfoPrint ignores the different values and uses the input tray selection in the form definition.
- If this attribute and the **default-medium** attribute have conflicting values, InfoPrint uses the value of the **default-medium** attribute.

default-medium

Identifies the medium for document pages on which this document prints.

GUI label

Medium requested

DSS

AIX, Generalized Fax, PSF, InfoPrint 2000, Passthrough, IPP, Metacode

Type

Resettable, single-valued, per-document

Allowed Values

AIX You can enter a text string of up to 255 characters that contains one of the values listed for the **medium-identifier** attribute for the medium object or a name of a medium you have created. See the medium object **medium-identifier** attribute.

Generalized Fax
letter, A4

2000 You can specify any text string that is listed as a supported medium.

PSF You can specify any text string that is listed as a supported medium.

Passthrough

The Passthrough DSS uses this attribute for job validation and scheduling only. It does not affect print output.

Default Value

No default value

Usage Guidelines

- InfoPrint validates the document against the logical destination attribute **media-supported** and the actual destination attribute **media-supported**.
- InfoPrint schedules the document against the actual destination attributes **media-supported** and **media-ready**.
- For AIX actual destinations, any medium selection in the data stream or form definition overrides the value you specify for this attribute.
- For Generalized Fax actual destinations, you can use this attribute to format the job for the media on the receiving Fax machine.
- For PSF actual destinations, the value you specify for this attribute overrides any medium selection in the data stream or form definition, with one exception. If you specify different values for this attribute for each document in a job, and also specify a value for the document **form-definition** attribute, InfoPrint ignores the different values and uses the medium selection in the form definition.
- If this attribute and the **default-input-tray** attribute have conflicting values, InfoPrint uses the value of this attribute.
- For InfoPrint 2000 actual destinations, the value specified must map to an existing medium object.

default-printer-resolution

Specifies the resolution, in pels, at which the printer device should print this document.

GUI label

Printer resolution requested

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>DSS</i>
240	PSF
300	PSF
360	PSF
480	PSF
600	PSF, InfoPrint 2000
720	PSF
1200	PSF

|

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PCL, PDF, PostScript, and TIFF documents.
- This attribute applies only to image data. It has no effect on font resolutions.
- The InfoPrint 5000 series printers only support 360 and 720 resolutions. All other printer models do not support these resolutions.
- If a **default-printer-document** attribute is not set, the first value specified on the actual destination's **printer-resolution-ready** attribute will be used.
- If the **printer-resolution-ready** attribute is not set, the image transform uses the value specified in the transform configuration file, while the other transforms use the 300 resolution.

department-text

Specifies department information that InfoPrint prints in the **DEPARTMENT:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Department

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the department information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 24 characters or less to make sure that there is enough room available on the printed page for all department information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

descriptor (Default Document Only)

Provides a description of this default document.

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that describes this default document.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description helps job submitters to determine if this is the default document they want to use.

destination-company-text

Specifies the name of the destination company that appears on the fax that maps to a user-defined customizable field.

DSS

Generalized Fax

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4095 characters long that contains the name of the destination company.

Default Value

No default value

destination-initial-value-document (Document Only)

Identifies the default document associated with the logical destination to which you submitted the document and that InfoPrint used to create the document.

GUI label

Default document used

DSS

All

Type

Non-settable, single-valued, per-job

Input Synonym

You can use the synonym **printer-initial-value-document**.

Allowed Values

InfoPrint sets this value to the name of the default document used.

Default Value

No default value

destination-pass-through

Lets you submit specific DSS (print driver) information along with the document. InfoPrint does not process the information, but passes it directly to the DSS.

For information about the use of **destination-pass-through** with **other-transform-options**, see 968.

GUI label

Other options

DSS

AIX, BSD, PSF, InfoPrint 2000, Metacode

Type

Resettable, single-valued, per-job

Input Synonyms

You can use the synonym **printer-pass-through** or **other-options**.

Allowed Values

You can enter a text string of up to 255 characters that contains the DSS information.

Default Value

No default value

Usage Guidelines

- For BSD, InfoPrint appends the contents of this attribute to the contents of the actual destination attribute **destination-command** after the mapped options.
- When sent to an actual destination with a transform sequence, the information you provide with the **destination-pass-through** attribute is always passed to the DSS, and this information should **not** be used to pass transform-unique data (that is, data that the DSS does not understand) to the transform sequence.

- If you use the **destination-pass-through** attribute when submitting a job to a PSF-other actual destination, you can either direct the options to the PSF DSS or to the backend specified in the value of the **destination-command** attribute. When you specify **-BE** in the value for the **destination-pass-through** attribute, InfoPrint passes all values preceding **-BE** to the PSF DSS. InfoPrint passes any values following **-BE** to the backend program.
- While **destination-pass-through** is supported by the Metacode DSS, the only way the Metacode DSS uses this attribute is to extract the jobid from z/OS. For more information about the Metacode DSS, see *InfoPrint Manager for AIX: InfoPrint Metacode* that is available with the i-listed Metacode PRPQ.

document-comment

Provides information that InfoPrint associates with this document.

DSS

All

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains information about this document, such as the fonts it requires.

Default Value

No default value

document-content (Document Only)

Identifies the location of InfoPrint's copy of the file to print.

DSS

All

Type

Non-settable, single-valued, per-document

Allowed Values

InfoPrint sets this value to the location of its copy of the document file. For example, `/var/pd/server name/pdpr01jnduc`.

Default Value

No default value

Usage Guidelines

- The location of the file might or might not be in the same directory as the InfoPrint Manager for AIX server that contains the job that contains the document. The location of the file might not even be on the same machine running the InfoPrint Manager for AIX server that contains the job that contains the document.
- The value in this attribute is not returned unless explicitly requested on a **pdlis** command.
- Removing or modifying the file indicated on this attribute can interfere with InfoPrint's ability to process the job.

document-content-list (Document Only)

Lists the files in a file-reference document.

DSS

All

Type

Non-settable, multi-valued, per-document

Allowed Values

InfoPrint sets this value to a list of file identifiers.

Default Value

No default value

Usage Guidelines

- A file-reference document is a list of similar printable documents. All the printable documents must have the same format, because InfoPrint processes them all the same way.
- The value in this attribute is not returned unless explicitly requested on a **pdlis** command.

document-file-name (Document Only)

Provides the name you want to assign to the file (document).

GUI label

File names

DSS

All

Type

Initially-settable, single-valued, per-document

Input Synonym

You can use the synonym **file-name**.

Allowed Values

You can enter a text string of up to 4095 characters that contains the file name or source specified with the **pdpr** command.

Default Value

The file name of the first document in the job.

document-finishing

Identifies the finishing options for this document.

GUI label

Finishing options

DSS

PSF

Type

Resettable, multi-valued, per-document

Allowed Values

You can enter any of these fixed values:

- **z-fold**

Default Value

No default value

Usage Guidelines

- This attribute is not valid for ASCII documents.
- When you specify a value for **document-finishing**, InfoPrint creates an inline form definition. Do not use the **form-definition** attribute to specify another form definition.
- InfoPrint validates and schedules jobs using this attribute against the **document-finishings-supported** actual destination attribute.
- To drive UP³I devices with PSF, UP³I finishing must be specified in a form definition. For information about UP³I devices, see the *InfoPrint Page Printer Formatting Aid: User's Guide*.

document-format

Identifies the format (data type) of this document.

GUI label

Format

DSS

All

Type

Resettable, single-valued, per-document

Input Synonym

You can use the synonym **format**.

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>	<i>DSS</i>
ascii		AIX, BSD, PSF (except upload printers), Passthrough, IPP, SAPconnect
dbcs-ascii		AIX, BSD, PSF, InfoPrint 2000
ditroff		BSD, PSF DSS for AIX, email, Generalized Fax, InfoPrint 2000
dpf-ipds		PSF DSS for Windows
d630		AIX, BSD
epson		AIX
gif		BSD, PSF DSS for AIX, email, Generalized Fax, InfoPrint 2000
hpgl	hp-gl	AIX, BSD
iso-6429		AIX, BSD, Passthrough, IPP
jpeg		BSD, PSF DSS for AIX, email, Generalized Fax, InfoPrint 2000
kg1		BSD, InfoPrint 2000
line-data		BSD, PSF, email, Generalized Fax, InfoPrint 2000
modca-p	afpds	BSD, PSF, email, Generalized Fax, InfoPrint 2000
passthru		AIX, BSD
pcl	hppcl, hp-pcl	AIX, BSD, PSF, email, Generalized Fax, InfoPrint 2000, Passthrough, IPP
pdf		BSD, PSF, email, Generalized Fax, InfoPrint 2000
postscript	ps	All
ppds		BSD
ppml		PSF
sap		BSD, PSF DSS, email, Generalized Fax, InfoPrint 2000, Passthrough
sap-abap		BSD, PSF DSS, email, Generalized Fax, InfoPrint 2000, Passthrough
simple-text	text	BSD, Passthrough, IPP
tiff		BSD, PSF DSS for AIX, email, Generalized Fax, InfoPrint 2000, SAPconnect
xml		PSF, email, Generalized Fax, InfoPrint 2000

Note: By default, BSD actual destinations support only a subset of the formats that the BSD DSS can print. You can update the destination attribute **document-format-supported** to include any or all of these values.

Default Value

The server identifies the document format. If the format cannot be determined, **ascii**

Usage Guidelines

- If you or a default document you specify do not provide a value for this attribute with the **pdpr** command, the server tries to determine the file format. If it cannot determine the format, InfoPrint uses the default.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **document-formats-supported**.
- You cannot print ASCII documents and documents with other formats in the same job.

document-number (Document Only)

See **document-sequence-number**.

document-sequence-number (Document Only)

Identifies this document in relation to the other documents of a multi-document job.

DSS

All

Type

Non-settable, single-valued, per-document

Input Synonyms

You can use the synonym **sequence-number** or **document-number**.

Allowed Values

An integer from 1 through 2147483647.

Default Value

No default value

Usage Guidelines

Use this number as part of the local ID or global ID to identify a given document in a job.

document-type (Document Only)

Indicates that the document is either a printable document, a group of printable documents, a font, or some other resource.

GUI label

Types

DSS

All

Type

Initially settable, single-valued, per-document

Input Synonym

You can use the synonym **type**.

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>DSS</i>
color-mapping-table	PSF
document-definition	PSF DSS for AIX, Email, Generalized Fax, InfoPrint 2000
email-body	Email
email-signature	Email
file-reference	All
font	PSF, Email, Generalized Fax, InfoPrint 2000
form-definition	PSF, Email, Generalized Fax, InfoPrint 2000
formatted-job-ticket	PSF, Email, Generalized Fax, InfoPrint 2000
insert-sheet	PSF, Email, Generalized Fax, InfoPrint 2000
job-ticket	PSF, Email, Generalized Fax, InfoPrint 2000
overlay	PSF, Email, Generalized Fax, InfoPrint 2000
overlay-back	PSF, Email, Generalized Fax, InfoPrint 2000
overlay-front	PSF, Email, Generalized Fax, InfoPrint 2000
page-definition	PSF, Email, Generalized Fax, InfoPrint 2000
page-segment	PSF, Email, Generalized Fax, InfoPrint 2000
page-shift-file	PSF, Email, Generalized Fax, InfoPrint 2000
printable	All
resource	PSF DSS for AIX, Email, Generalized Fax, InfoPrint 2000

Default Value

printable

Usage Guidelines

- A file-reference document is a list of similar printable documents. All the printable documents must have the same format, because InfoPrint processes them all the same way.

- Insert documents normally require media sheets from the **insert** input tray, which is on the finisher. This means that you cannot print an insert with the rest of the job. If you want printed inserts, preprint them and load the printed sheets into the **insert** tray.

This does not mean that the insert document should not have any printable content. The insert document should be a MO:DCA-P, PostScript, or TIFF (not ASCII) file containing text like this:

This is an insert sheet.

A MO:DCA-P insert document is supplied with InfoPrint Submit. If you submit jobs in other ways, create your own insert document.

If the **insert** input tray is not available (for example, if you are proofing a job on a printer without a finisher), InfoPrint prints the insert document on a sheet from the default input bin, so that you can easily see where sheets from the insert tray will be inserted in the final job.

- To print a booklet with a cover, specify **insert** as the document format of the first document in the job.
- An email job must not include more than one **email-body** document or more than one **email-signature** document.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **document-types-supported**.

email-from-address

Specifies the electronic mailing address of the sender of this document.

DSS

Email

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4096 characters long that contains the electronic mailing address.

Default Value

No default value

email-to-address

Specifies the electronic mailing address of the recipient of this document.

DSS

Email

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4096 characters long that contains the electronic mailing address.

Default Value

No default value

Usage Guidelines

This value is required for documents submitted to email destinations.

explicit-page-placement

Identifies the enhanced n-up function requested with this document. However, this function is only available on printers that support enhanced n-up. This attribute is ignored unless the **output-format** attribute is specified.

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

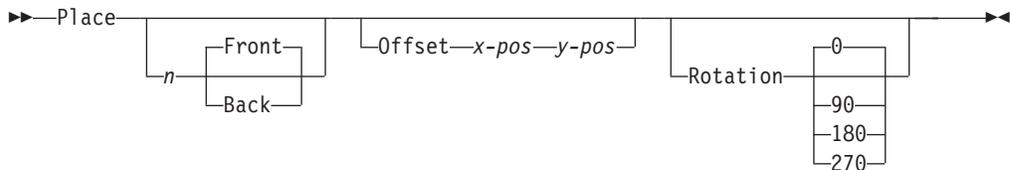
Type

Resettable, single-valued, per-document

Allowed Values

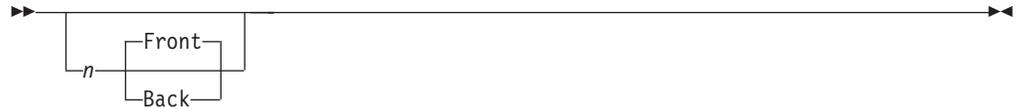
This attribute uses a limited version of the **Place** subcommand from the Page Printer Formatting Aid (PPFA). Here is the syntax for the subcommand:

Place subcommand



- Places a page of data or a constant modification relative to a partition. Each set of **Place** subcommands defines an enhanced partition. Each *n* partition can have its own **front**, **back**, **offset**, and **rotation** setting.

You must specify the same number of **Place** subcommands as the number of partitions on the sheet. The number of **Place** subcommands should equal (number-up * sides). Failure to specify the proper number of **Place** subcommands results in an error. The sequence of the **Place** subcommand is the sequence in which the incoming pages will be placed in the partitions.



- Specifies the numbered partition (1–4) into which the page of data is placed.

Front

Specifies that this partition is placed on the front side of the sheet. This is the default when a partition number is specified and neither **Front** nor **Back** are specified.

Back

Specifies that this partition is placed on the back side of the sheet.

- When you specify **Front** or **Back**, you must also specify a partition number with *n*.



- *x-pos* specifies a positive or negative offset of the page horizontally.
y-pos specifies a positive or negative offset of the page vertically.
 When you specify **Offset**, you must specify both the *x-pos* and *y-pos* values.
 If **Offset** is not specified, InfoPrint Manager uses the value of 0 (zero) for both the x- and y-offsets. The specified or default offset is used over any other image shifts specified with the **x-image-shift**, **y-image-shift**, **x-image-shift-back**, or **y-image-shift-back** attributes.

You can specify the units in inches (in), millimeters (mm), centimeters (cm), or points. If you do not specify a unit of measure for **Offset**, InfoPrint Manager uses a default unit of measure value of inches.



- Specifies the clockwise rotation of the page placed by this command.
 Rotation turns the page around its fixed origin points. If you rotate the page without moving its origin point, you might rotate it off the physical medium. To prevent this, always offset the origin to the place you want to be for the rotated page.

Examples

- *3-up example*

This example is for 3-up duplex where the first and last pages are shifted in toward the center page. All placements are from partition 1:

```
explicit-page-placement='PLACE 1 OFFSET 1.0 1.0
                           PLACE 1 OFFSET 7.0 1.0
                           PLACE 1 OFFSET 13.0 1.0
                           PLACE 1 BACK OFFSET 1.0 1.0
                           PLACE 1 BACK OFFSET 7.0 1.0
                           PLACE 1 BACK OFFSET 13.0 1.0'
```

Which results in a document with the front side that looks like:

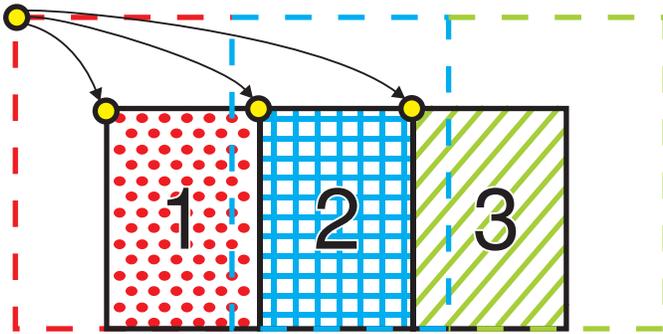


Figure 20. Results of the **explicit-page-placement** attribute showing a 3-up page offset from partition 1

- 2-up example

This example is for printing 2-up tumble duplex with rotation:

```
explicit-page-placement='PLACE 1 OFFSET 1.500 IN 6.000 IN ROTATION 270  
PLACE 2 OFFSET 0 IN 6.000 IN ROTATION 270  
PLACE 1 BACK OFFSET 1.500 IN 8.500 IN ROTATION 270  
PLACE 2 BACK OFFSET 0 IN 8.500 IN ROTATION 270'
```

Which results in a document that looks like:

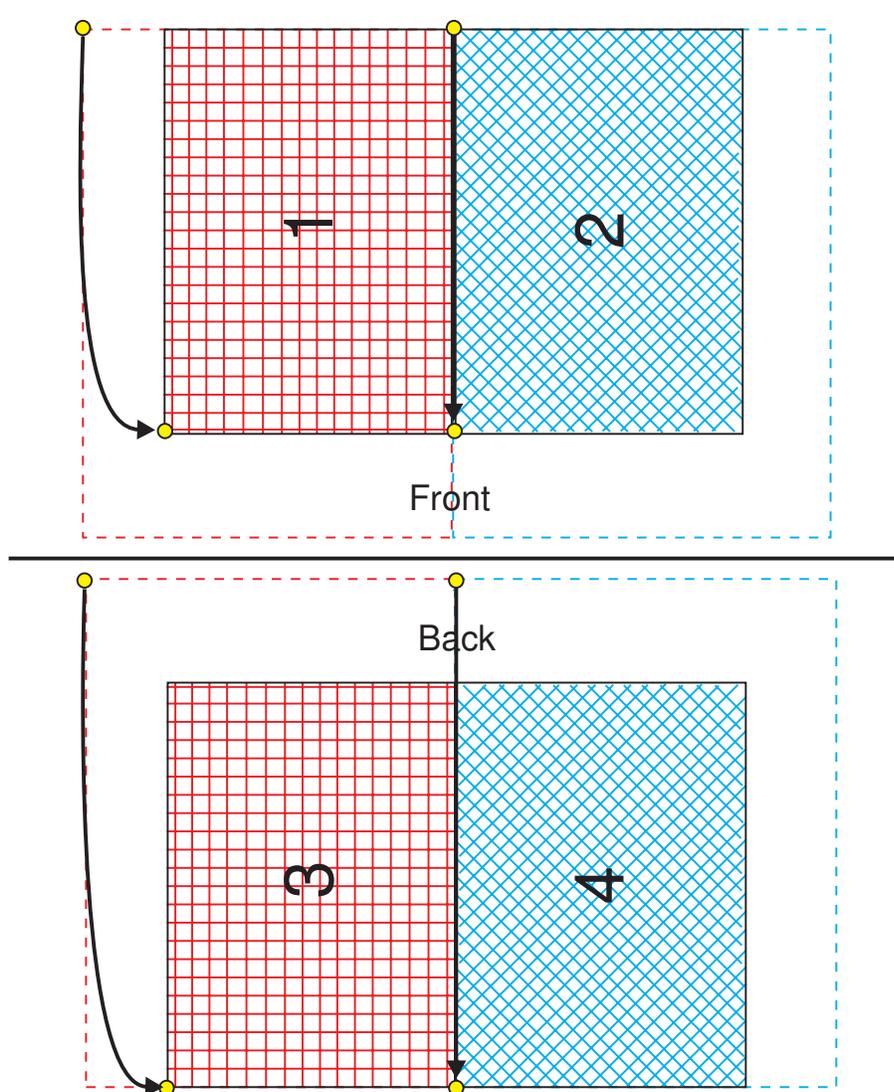


Figure 21. Results of the **explicit-page-placement** attribute showing a 2-up tumble duplex with rotation

Default Value

No default value

Usage Guidelines

- The syntax of the data provided is not checked until the job is scheduled to print. Syntax errors detected at print time cause the job to abort.
- This attribute is ignored unless the **output-format** attribute is specified.
- When you use the **explicit-page-placement** attribute, page data that is outside of the partition prints as long as it fits on the media.
- This attribute is not valid for ASCII documents.
- This attribute is not valid for PSF-command or other-driver destinations.
- If you specify a value for the **form-definition** document attribute, InfoPrint ignores the **explicit-page-placement** attribute and uses the page placement information in the form definition.

fax-number

Specifies the fax number of the recipient of this document.

DSS

Generalized Fax

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4096 characters long that contains the fax number.

Default Value

No default value

Usage Guidelines

This value is required for documents submitted to fax destinations.

fax-to-name

Specifies the name of the person to whom this fax document is addressed that maps to a user-defined customizable field. For more information on Generalized Fax, see *InfoPrint Manager for AIX: Using Generalized Fax*.

DSS

Generalized Fax

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4096 characters long that contains the person's name.

Default Value

No default value

file-name (Document Only)

See **document-file-name**.

font-fidelity-action

Indicates what InfoPrint should do if a font required to print the document is not available in the resolution specified by the data stream, the **font-resolution** attribute, or the actual destination **default-font-resolution** attribute.

GUI label

Font fidelity action

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
stop	Stop printing the job.
continue	Try to substitute a similar font at a different resolution.

Default Value

No default value. If you do not specify a value for this attribute, InfoPrint uses the value in the data stream, then the value of the actual destination attribute **default-font-fidelity-action**.

Usage Guidelines

The **font-fidelity-action** attribute does not apply to OpenType fonts.

font-processing-messages

Indicates whether InfoPrint should issue messages when it substitutes a font with a different resolution for a font with the resolution specified by the data stream, the **font-resolution** attribute, or the actual destination **default-font-resolution** attribute.

GUI label

Issue font processing messages

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

The `font-processing-messages` attribute does not apply to OpenType fonts.

font-resolution

Identifies the resolution of the fonts used to create this document.

GUI label

Font resolution

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

- 240
- 300
- `open-type`
- `outline`

Default Value

No default value. If there is no font resolution specified in the data stream and you do not specify a value for this attribute, InfoPrint uses the value of the actual destination attribute `default-font-resolution`.

Usage Guidelines

- The font resolution specified in the data stream overrides this attribute.
- Usually the font resolution and the printer resolution match, but there are two cases when they do not:
 - Some printer devices, for example, the InfoPrint 60 and InfoPrint 4000, can print fonts of any resolution, although the print head is always 600 pels.

- It is possible to print a document created with fonts of one resolution on a printer with a different resolution by substituting fonts. Depending on the document, the output might or might not be acceptable.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **font-resolutions-supported**.
- The **open-type** value is only valid for printers that support TrueType and OpenType fonts. For more information about TrueType or OpenType fonts, see *Using OpenType Fonts in an AFP System*.

form-definition

Identifies the form definition used when printing this document.

GUI label

Form definition

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 8 characters that contains the identification for this resource.

Default Value

No default value. If you omit this attribute or if it contains no value, and if InfoPrint does not create a form definition using the values of other document and job attributes, InfoPrint uses the form definition defined by the actual destination attribute **form-definition**.

Usage Guidelines

- For PSF, if you specify a value for the **document-finishing** or **job-finishing** attribute, InfoPrint creates its own form definition. Do not specify a value for this attribute.
- InfoPrint does not support inline form definitions in multi-document jobs. To print more than one PostScript document in a single job, configure the **/usr/lpp/psf/ps2afp/ps2afpd.cfg** file to include this line:

```
device_controls = any
```

and use this attribute to specify a form definition when you submit the job to print.

- For InfoPrint 2000, you can specify job-finishing with or without a form definition. InfoPrint does not create a form definition for finishing on the InfoPrint 2000.
- To drive UP³I devices with PSF, UP³Ii finishing must be specified in a form definition. For information about UP³I devices, see the *InfoPrint Page Printer Formatting Aid: User's Guide*.

form-length

Specifies the length of the form in a continuous-forms printer that supports the IPDS SMS (Set Media Size) command.

If you do not specify the **form-length** attribute, InfoPrint looks in the input file for an inline form definition. If the input file doesn't contain a form definition, InfoPrint uses the default form definition for that InfoPrint actual destination. If the form definition does not specify the form length, InfoPrint uses the printer default value.

GUI label

Form length

DSS

PSF TCP/IP

Type

Resettable, single-valued, per-job

Allowed Values

A numeric value from 0 to 3467.9 mm. The value you specify is in the form *nnnn.nnn*, which is a number that can optionally contain a decimal point. Millimeters is the unit of measure for the value that you specify.

Note: The actual destination can impose additional restrictions on the allowable range.

Default Value

No default value.

Usage guidelines

- The **form-length** attribute overrides any form length value specified in the form definition that InfoPrint uses for the job.
- If a value is not specified for **form-length** and there is no form length value specified in the form definition associated with the input file, the form length is defaulted to the printer console setting for form length.
- InfoPrint validates and schedules jobs using this attribute against the **form-length-range-supported** actual destination attribute.

format

See **document-format**.

halftone

Identifies the desired combination of screen name, output appearance, and optionally, calibration to use for printing halftones. The halftone values are used to prepare color and gray-scale documents for printing on bi-level, black and white printers.

GUI label

Halftone

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, complex, per-document

Syntax

screen-name:output-appearance.saved-calibration

Separate the values with colons, for example:

`ibm106lpi:dark`

The *saved-calibration* value is used only for custom halftones.

Allowed Values

The value of a **halftone** attribute is a combination of screen name and output appearance in the format: *screen-name:output-appearance*. For custom halftones, the value can also be a combination of screen name, output appearance, and saved calibration in the format: *screen-name:output-appearance.saved-calibration*.

You can enter a customized value or any of the supported (default) values for a particular model. The supported values by models follow.

With the InfoPrint 21, you can select the one of these halftone values:

- **ibm71lpi:standard**
- **ibm71lpi:highlight-midtones**
- **ibm71lpi:dark**
- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm150lpi:standard**

- **ibm150lpi:highlight-midtones**
- **ibm150lpi:dark**
- **ibm200lpi:standard**
- **ibm200lpi:highlight-midtones**
- **ibm200lpi:dark**

With the InfoPrint 2060ES, InfoPrint 2075ES, InfoPrint 2090ES, and InfoPrint 2105ES printers, you can select one of these halftone values:

- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm85lpi:accutone**
- **ibm85lpiRot90:standard**
- **ibm85lpiRot90:highlight-midtones**
- **ibm85lpiRot90:dark**
- **ibm85lpiRot90:accutone**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm106lpi:accutone**
- **ibm106lpiRot90:standard**
- **ibm106lpiRot90:highlight-midtones**
- **ibm106lpiRot90:dark**
- **ibm106lpiRot90:accutone**
- **ibm121lpi:standard**
- **ibm121lpi:highlight-midtones**
- **ibm121lpi:dark**
- **ibm121lpi:accutone**
- **ibm121lpiRot90:standard**
- **ibm121lpiRot90:highlight-midtones**
- **ibm121lpiRot90:dark**
- **ibm121lpiRot90:accutone**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm141lpi:accutone**
- **ibm141lpiRot90:standard**
- **ibm141lpiRot90:highlight-midtones**
- **ibm141lpiRot90:dark**
- **ibm141lpiRot90:accutone**

Note: You cannot use the **ibm71lpi...** values with the InfoPrint 2060ES, InfoPrint 2075ES, InfoPrint 2090ES, and InfoPrint 2105ES printers.

With the InfoPrint 2190, InfoPrint 2210, and InfoPrint 2235 printers, you can select one of these halftone values:

- **ibm85lpi:standard**

- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm85lpi:dark2**
- **ibm85lpi:accutone**
- **ibm85lpiRot90:standard**
- **ibm85lpiRot90:highlight-midtones**
- **ibm85lpiRot90:dark**
- **ibm85lpiRot90:dark2**
- **ibm85lpiRot90:accutone**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm106lpi:dark2**
- **ibm106lpi:accutone**
- **ibm106lpiRot90:standard**
- **ibm106lpiRot90:highlight-midtones**
- **ibm106lpiRot90:dark**
- **ibm106lpiRot90:dark2**
- **ibm106lpiRot90:accutone**
- **ibm121lpi:standard**
- **ibm121lpi:highlight-midtones**
- **ibm121lpi:dark**
- **ibm121lpi:dark2**
- **ibm121lpi:accutone**
- **ibm121lpiRot90:standard**
- **ibm121lpiRot90:highlight-midtones**
- **ibm121lpiRot90:dark**
- **ibm121lpiRot90:dark2**
- **ibm121lpiRot90:accutone**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm141lpi:dark2**
- **ibm141lpi:accutone**
- **ibm141lpiRot90:standard**
- **ibm141lpiRot90:highlight-midtones**
- **ibm141lpiRot90:dark**
- **ibm141lpiRot90:dark2**
- **ibm141lpiRot90:accutone**

With the InfoPrint 4000 (IR1/IR2) or InfoPrint 4000-IR3-IR4 printer, you can enter one of these halftone values:

- **ibm71lpi:standard**
- **ibm71lpi:highlight-midtones**
- **ibm71lpi:dark**

- **ibm71pi:standard.enhtoner**
- **ibm71pi:highlight-midtones.enhtoner**
- **ibm71pi:dark.enhtoner**
- **ibm85pi:standard**
- **ibm85pi:highlight-midtones**
- **ibm85pi:dark**
- **ibm85pi:standard.enhtoner**
- **ibm85pi:highlight-midtones.enhtoner**
- **ibm85pi:dark.enhtoner**
- **ibm106pi:standard**
- **ibm106pi:highlight-midtones**
- **ibm106pi:dark**
- **ibm106pi:standard.enhtoner**
- **ibm106pi:highlight-midtones.enhtoner**
- **ibm106pi:dark.enhtoner**
- **ibm141pi:standard**
- **ibm141pi:highlight-midtones**
- **ibm141pi:dark**
- **ibm141pi:standard.enhtoner**
- **ibm141pi:highlight-midtones.enhtoner**
- **ibm141pi:dark.enhtoner**

With the InfoPrint 4100-HD3-HD4, 4100-HD5-HD6, 4100-HS3, 4100-MD1-MD2, 4100-MS1, 4100-PD1-PD2, and 4100-PS1 printers, you can enter one of these halftone values:

- **ibm71pi:standard**
- **ibm71pi:highlight-midtones**
- **ibm71pi:dark**
- **ibm71pi:dark2**
- **ibm71pi:accutone**
- **ibm71piRot90:standard**
- **ibm71piRot90:highlight-midtones**
- **ibm71piRot90:dark**
- **ibm71piRot90:dark2**
- **ibm71piRot90:accutone**
- **ibm85pi:standard**
- **ibm85pi:highlight-midtones**
- **ibm85pi:dark**
- **ibm85pi:dark2**
- **ibm85pi:accutone**
- **ibm85piRot90:standard**
- **ibm85piRot90:highlight-midtones**
- **ibm85piRot90:dark**
- **ibm85piRot90:dark2**
- **ibm85piRot90:accutone**
- **ibm106pi:standard**

- ibm106lpi:highlight-midtones
- ibm106lpi:dark
- ibm106lpi:dark2
- ibm106lpiRot90:standard
- ibm106lpiRot90:highlight-midtones
- ibm106lpiRot90:dark
- ibm106lpiRot90:accutone
- ibm106lpiRot90:dark2
- ibm106lpi:accutone
- ibm141lpi:standard
- ibm141lpi:highlight-midtones
- ibm141lpi:dark
- ibm141lpi:dark2
- ibm141lpi:accutone
- ibm141lpiRot90:standard
- ibm141lpiRot90:highlight-midtones
- ibm141lpiRot90:dark
- ibm141lpiRot90:dark2
- ibm141lpiRot90:accutone

With the InfoPrint 4100 printers, you can enter one of these halftone values:

- ibm71lpi:standard
- ibm71lpi:highlight-midtones
- ibm71lpi:dark
- ibm71lpiRot90:standard
- ibm71lpiRot90:highlight-midtones
- ibm71lpiRot90:dark
- ibm85lpi:standard
- ibm85lpi:highlight-midtones
- ibm85lpi:dark
- ibm85lpiRot90:standard
- ibm85lpiRot90:highlight-midtones
- ibm85lpiRot90:dark
- ibm106lpi:standard
- ibm106lpi:highlight-midtones
- ibm106lpi:dark
- ibm106lpiRot90:standard
- ibm106lpiRot90:highlight-midtones
- ibm106lpiRot90:dark
- ibm141lpi:standard
- ibm141lpi:highlight-midtones
- ibm141lpi:dark
- ibm141lpiRot90:standard
- ibm141lpiRot90:highlight-midtones
- ibm141lpiRot90:dark

With the InfoPrint 75 printers, you can select one of these halftone values:

- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm85lpi:dark2**
- **ibm85lpi:accutone**
- **ibm85lpiRot90:standard**
- **ibm85lpiRot90:highlight-midtones**
- **ibm85lpiRot90:dark**
- **ibm85lpiRot90:dark2**
- **ibm85lpiRot90:accutone**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm106lpi:dark2**
- **ibm106lpi:accutone**
- **ibm106lpiRot90:standard**
- **ibm106lpiRot90:highlight-midtones**
- **ibm106lpiRot90:dark**
- **ipm106lpiRot90:dark2**
- **ibm106lpiRot90:accutone**
- **ibm121lpi:standard**
- **ibm121lpi:highlight-midtones**
- **ibm121lpi:dark**
- **ibm121lpi:dark2**
- **ibm121lpi:accutone**
- **ibm121lpiRot90:standard**
- **ibm121lpiRot90:highlight-midtones**
- **ibm121lpiRot90:dark**
- **ibm121lpiRot90:dark2**
- **ibm121lpiRot90:accutone**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm141lpi:dark2**
- **ibm141lpi:accutone**
- **ibm141lpiRot90:standard**
- **ibm141lpiRot90:highlight-midtones**
- **ibm141lpiRot90:dark**
- **ibm141lpiRot90:dark2**
- **ibm141lpiRot90:accutone**

With the InfoPrint 100 printers, you can select one of these halftone values:

- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**

- **ibm85lpi:dark**
- **ibm85lpi:dark2**
- **ibm85lpi:accutone**
- **ibm85lpiRot90:standard**
- **ibm85lpiRot90:highlight-midtones**
- **ibm85lpiRot90:dark**
- **ibm85lpiRot90:dark2**
- **ibm85lpiRot90:accutone**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm106lpi:dark2**
- **ibm106lpi:accutone**
- **ibm106lpiRot90:standard**
- **ibm106lpiRot90:highlight-midtones**
- **ibm106lpiRot90:dark**
- **ipm106lpiRot90:dark2**
- **ibm106lpiRot90:accutone**
- **ibm121lpi:standard**
- **ibm121lpi:highlight-midtones**
- **ibm121lpi:dark**
- **ibm121lpi:dark2**
- **ibm121lpi:accutone**
- **ibm121lpiRot90:standard**
- **ibm121lpiRot90:highlight-midtones**
- **ibm121lpiRot90:dark**
- **ibm121lpiRot90:dark2**
- **ibm121lpiRot90:accutone**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm141lpi:dark2**
- **ibm141lpi:accutone**
- **ibm141lpiRot90:standard**
- **ibm141lpiRot90:highlight-midtones**
- **ibm141lpiRot90:dark**
- **ibm141lpiRot90:dark2**
- **ibm141lpiRot90:accutone**

With the InfoPrint SP 8200 DN1 printers, you can select one of these halftone values:

- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm85lpi:dark2**

- **ibm85lpi:accutone**
- **ibm85lpiRot90:standard**
- **ibm85lpiRot90:highlight-midtones**
- **ibm85lpiRot90:dark**
- **ibm85lpiRot90:dark2**
- **ibm85lpiRot90:accutone**
- **ibm106lpi:standard**
- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm106lpi:dark2**
- **ibm106lpi:accutone**
- **ibm106lpiRot90:standard**
- **ibm106lpiRot90:highlight-midtones**
- **ibm106lpiRot90:dark**
- **ibm106lpiRot90:dark2**
- **ibm106lpiRot90:accutone**
- **ibm121lpi:standard**
- **ibm121lpi:highlight-midtones**
- **ibm121lpi:dark**
- **ibm121lpi:dark2**
- **ibm121lpi:accutone**
- **ibm121lpiRot90:standard**
- **ibm121lpiRot90:highlight-midtones**
- **ibm121lpiRot90:dark**
- **ibm121lpiRot90:dark2**
- **ibm121lpiRot90:accutone**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**
- **ibm141lpi:dark2**
- **ibm141lpi:accutone**
- **ibm141lpiRot90:standard**
- **ibm141lpiRot90:highlight-midtones**
- **ibm141lpiRot90:dark**
- **ibm141lpiRot90:dark2**
- **ibm141lpiRot90:accutone**

For all other base-printer models, you can enter one of these halftone values:

- **ibm71lpi:standard**
- **ibm71lpi:highlight-midtones**
- **ibm71lpi:dark**
- **ibm85lpi:standard**
- **ibm85lpi:highlight-midtones**
- **ibm85lpi:dark**
- **ibm106lpi:standard**

- **ibm106lpi:highlight-midtones**
- **ibm106lpi:dark**
- **ibm141lpi:standard**
- **ibm141lpi:highlight-midtones**
- **ibm141lpi:dark**

Default Value

No default value; however there is a default behavior based on printer model.

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the actual destination attribute **halftones-supported**.
- This document attribute is used only for GIF, JPEG, PDF, PostScript, and TIFF documents.

image-fit

Specifies how InfoPrint adjusts an image to fit on the printed page.

GUI label

Image fit

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can specify one of these fixed values:

Value	Image formats
position-and-trim	All image formats
scale-to-fit	TIFF, GIF, and JPEG image formats

Default Value

No default value

Usage Guidelines

- When the value of **image-fit** is **position-and-trim**, images larger than the page size are trimmed to fit on any sides that extend beyond the page boundary. For example, if the top left corner of the image is aligned with the top left corner of the logical page, the right side and bottom of the image are trimmed off.
Use the **x-image-shift**, **x-image-shift-back**, **y-image-shift**, and **y-image-shift-back** attributes to adjust the positioning of the image on the page. Images smaller than the page size are not changed.

- Images larger than the page size are reduced proportionately in both dimensions to fit. The whole image is preserved, but it is smaller than the original. Images smaller than the page size are not changed.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **image-fit-supported**.

image-length

Specifies the length of a page of PostScript, PCL, TIFF, GIF, JPEG, or PDF data after it has been transformed for InfoPrint printing.

GUI label

Finished page length (inches) or (mm)

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

The value you specify is in the form *nnnn.nnnu*

nnnn.nnn is a number that can optionally contain a decimal point.

u is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit, the default unit is pels. You cannot use a decimal point when the unit is pels.

For 240-pel resolution printers, valid values are:

16 - 5280	pels
0.067 - 22.000	inches
1.701 - 588.852	millimeters

For 300-pel resolution printers, valid values are:

16 - 6600	pels
0.053 - 22.000	inches
1.346 - 558.852	millimeters

For 480-pel resolution printers, valid values are:

16 - 10560	pels
0.067 - 22.000	inches

0.838 - millimeters
558.852

For 600-pel resolution printers, valid values are:

16 - 20400 pels
0.267 - inches
34.000
1.346 - millimeters
863.6

Default Value

No default value

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PCL, PDF, PostScript, and TIFF documents.
- This attribute is not valid for ASCII documents.
- If a text margin is already built into the file, try **image-length=11i** to set the length to 11 inches.

image-out-format

Indicates which type of image data InfoPrint produces.

GUI label

Image out format

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

For PSF, you can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
ioca-uncompressed	InfoPrint produces all image data in the Image Object Content Architecture (IOCA) uncompressed format.
im1	InfoPrint produces all image data in IBM's IM uncompressed format. This image format prints on all InfoPrint printers.
io1	InfoPrint produces all image data in the Image Object Content Architecture uncompressed format.
io1-g4	InfoPrint produces all image data in the Image Object Content Architecture compressed G4 Modified Modified Read (MMR) format.

<i>Fixed Value</i>	<i>Explanation</i>
io1-mm	InfoPrint produces all image data in the Image Object Content Architecture compressed Modified Modified Read (MMR) format.
asis	InfoPrint produces all image data in the same format as it is in the input file.

For InfoPrint 2000, you can only enter this fixed value:

- **io1-g4**

Default Value

io1-g4

Usage Guidelines

- This attribute is valid only for GIF, JPEG, line-data, PCL, PDF, PostScript, and TIFF documents.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **image-out-formats-supported**.
- If the **image-out-format** attribute is not specified for a document, the **io1-g4** value is used for the transform when the **io1-g4** value is found in the **image-out-formats-supported** actual destination attribute. If the **io1-g4** value is **not** found in the **image-out-formats-supported** actual destination attribute, InfoPrint uses **im1** for the transform output format.

image-width

Specifies the width of a page of PostScript, PCL, TIFF, GIF, JPEG, or PDF data after it has been transformed for InfoPrint printing.

GUI label

Finished page width (inches) or (mm)

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

The value you specify is in the form *nnnn.nnnu*

nnnn.nnn is a number that can optionally contain a decimal point.

u is the units in inches (**i**) or millimeters (**m**). If you do not specify a unit, the default unit is pels. You cannot use a decimal point when the unit is pels.

For 240-pel resolution printers, valid values are:

16 - 5280 pels

0.067 - inches
17.000
1.701 - millimeters
431.852

For 300-pel resolution printers, valid values are:

16 - 6600 pels
0.053 - inches
17.000
1.346 - millimeters
558.852

For 480-pel resolution printers, valid values are:

16 - 10560 pels
0.033 - inches
17.000
0.838 - millimeters
558.852

For 600-pel resolution printers, valid values are:

16 - 20400 pels
0.267 - inches
34.000
1.346 - millimeters
863.6

Default Value

No default value

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PCL, PDF, PostScript, and TIFF documents.
- If a text margin is already built into the file, try **image-width=8.5i** to set the width to 8.5 inches.

initial-value-document (Document Only)

Identifies a default document (in a given server) that InfoPrint uses to create this document.

DSS

All

Type

Initially settable, single-valued, per-document

Allowed Values

You can enter a text string of up to 255 characters that contains the name of the desired default document.

Default Value

No default value

Usage Guidelines

If you specify this attribute, InfoPrint uses the attribute values from the default document to set the document attribute values, unless you override the default document attribute values by supplying attribute values at the command line.

initial-value-document-identifier (Default Document Only)

Identifies this default document.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *DefaultDocumentName* portion of the argument used with the `pdcreate` command when this default document is created.

Default Value

No default value

Usage Guidelines

The value for this attribute must be unique in the server.

input-color-management-resources

Specifies the information for the input (audit) color resource.

GUI label

Input color management resources

Type

Resettable, multi-valued, per-document

Allowed Values

You can enter any valid input color resource values, including ICC Profiles, ICC Profile file names, Color Management Resource (CMR) short names, CMR file names, and CMR long names.

Default Value

No default value

Usage Guidelines

- This attribute is used to support color resource management.
- Use this attribute together with the **color-rendering-intent**, **destination-model**, and **resource-context** attributes.
- In normal processing, specify an **input-color-management-resources** attribute along with an associated **output-color-management-resources** attribute. If one is specified without the other, there will not be any error and InfoPrint will use the internal default values as the not specified attribute values at the transform level.
- If you do not specify the **input-color-management-resources** document/default document attribute and the **output-color-management-resource** attribute, and you specify the **output-color-management-resource-tag** document/default document attribute, InfoPrint will ignore the specified **output-color-management-resource-tag** attribute.

input-exit

Specifies the name or the full path name of the input record exit program that InfoPrint uses to process this line-data document. With InfoPrint Manager for AIX, if you specify the file name without a path, InfoPrint searches for the exit program in the paths specified by the **PATH** environment variable. With InfoPrint Manager for Windows, you must specify a fully qualified path name for the exit program. If you do not specify this option, InfoPrint does not use an input record exit program.

GUI label

Input exit program

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter any valid input record exit program name. The exit program name is case-sensitive.

Default Value

No default value

Usage Guidelines

- This attribute is valid only for line-data documents.
- If the input file is unformatted ASCII, but the fonts you are using contain EBCDIC, not ASCII, code points (you specify **convert-to-ebcdic=yes**), you can specify:
 - For InfoPrint Manager for AIX:
 - /usr/lpp/psf/bin/apka2e**
Converts ASCII stream data to EBCDIC stream data.
 - /usr/lpp/psf/bin/asciinpe**
Converts unformatted ASCII data into a record format and then converts the ASCII stream data to EBCDIC stream data.
 - For InfoPrint Manager for Windows
 - install_path\bin\apka2e**
Converts ASCII stream data to EBCDIC stream data.
 - install_path\bin\asciinpe**
Converts unformatted ASCII data into a record format and then converts the ASCII stream data to EBCDIC stream data.
- If your input file uses fonts that have ASCII code points (you specify **convert-to-ebcdic=no**), you should *not* use the **apka2e** or **asciinpe** exit programs. However, if your unformatted ASCII file contains carriage returns and form feeds, you might want to specify this exit program supplied with InfoPrint:
 - For InfoPrint Manager for AIX:
 - /usr/lpp/psf/bin/asciinp**
Converts unformatted ASCII data that contains carriage returns and form feeds into a record format that contains an American National Standards Institute (ANSI) carriage control character. This exit encodes the ANSI carriage control character in byte 0 of every record.
 - For InfoPrint Manager for Windows:
 - install_path\bin\asciinp**
Converts unformatted ASCII data that contains carriage returns and form feeds into a record format that contains an American National Standards Institute (ANSI) carriage control character. This exit encodes the ANSI carriage control character in byte 0 of every record.

input-tray-select

Use the **default-input-tray** attribute or default to the input tray specified in the data stream or form definition.

DSS

PSF

jde-jdl

Specifies the input for the submitted file as JDE (Job Descriptor Entry) and JDL (Job Descriptor Library) separated by a comma.

For more information about this attribute, see *InfoPrint Manager for AIX: InfoPrint Metacode* that is available with the i-listed Metacode PRPQ.

GUI label

JDE,JDL

DSS

Metacode

Type

Resettable, single-valued, per-document in a job

Allowed Values

A text string for JDE and JDL that is up to six digit strings separated by a comma. The text string can contain A-Z, 0—9, ?, and \$.

Default Value

No default value. For information about the default behavior, see *InfoPrint Manager for AIX: InfoPrint Metacode* that is available with the i-listed Metacode PRPQ.

Usage Guidelines

For more information about this attribute, see *InfoPrint Manager for AIX: InfoPrint Metacode* that is available with the i-listed Metacode PRPQ.

job-terminate-message-count

Specifies the number of messages that can be issued for a document in the job before the job is terminated. InfoPrint Manager counts datastream-type error messages, such as undefined character messages or off logical page errors toward the **job-terminate-message-count**. Messages issued because of an operator action (such as, pausing a job) or messages that require operator intervention (such as, a paper jam) are not counted in the **job-terminate-message-count**.

GUI label

Terminate message count

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter an integer from 0 through 9999.

Default Value

No default value.

Usage Guidelines

- If the specified limit is reached while processing a document in the job, the messages print with one more message stating that the job is being terminated because the **job-terminate-message-count** has been reached.
- If the messages are directed to a file instead of being printed, the **dss-job-message-disposition** actual destination attribute specifies where the messages are written, and if the **job-terminate-message-count** is reached, the job still terminates.
- Some errors generate groups of messages, and InfoPrint Manager counts this group as one toward the **job-terminate-message-count**.
- When the value is 0, the job should not be terminated because of the number of messages. This is also the behavior when no value is specified.

jog-between-job-copies

Indicates whether to jog stacked output between job copies.

GUI label

Jog between copies

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value. If you omit this attribute or it contains no value, output is jogged between job copies on printers that support jog.

Usage Guidelines

This attribute controls whether stacked output is jogged (offset) between job copies. When used on printers that do not support jogging output, the value of this attribute is ignored. When used on printers that do support jogging output, if the value of this attribute is **true** or **yes**, the stacked output is jogged. If the value is **false** or **no**, the output is not jogged.

list-of-managers (Default Document Only)

Lists the people responsible for this default document.

DSS

All

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **managers**.

Allowed Values

You can enter a text string up to 255 characters long, per value, that contains the name or user ID of the person responsible for this default document.

Default Value

No default value

Usage Guidelines

This attribute is useful if a user needs to contact someone to report a problem or to request a change.

logical-destinations-ready (Default Document Only)

Lists the enabled logical destinations that reference this default document.

DSS

All

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **logical-printers-ready**.

Allowed Values

InfoPrint sets and updates this value with the destination names of the enabled logical destinations that reference this object.

Default Value

No default value

Usage Guidelines

- InfoPrint sets this attribute when the destination attribute **destination-initial-value-document** of an enabled logical destination references this default document.

- InfoPrint removes the destination identification from the list if the destination is disabled.
- You cannot delete this default document while any of the logical destinations identified in this list are enabled.

logical-printers-ready (Default Document Only)

See `logical-destinations-ready`.

managers (Default Document Only)

See `list-of-managers`.

maximum-messages-printed

Specifies the maximum number of error messages InfoPrint prints with the job.

GUI label

Maximum messages printed

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter an integer from 0 through 9999.

Default Value

None.

Usage Guidelines

- This attribute identifies how many error messages InfoPrint prints, not how many messages InfoPrint generates.
- If the value is:
 - 0 No messages print
 - 9999 All messages print
- While `maximum-messages-printed` has no default value, if you do not specify this attribute, it is like specifying `9999` because all messages print.
- If the value specified for `job-terminate-message-count` is less than the value for `maximum-messages-printed`, the `maximum-messages-printed` value will never be reached.

maximum-transform-pages-ahead

Specifies the maximum number of pages by which the InfoPrint transform programs can get ahead of the printing process.

GUI label

Maximum pages to transform ahead

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter an integer from 500 through 2147483647.

Default Value

No default value

Usage Guidelines

- Pages that have been transformed but not printed are stored in a print buffer. Set a value for this attribute to keep the print buffer from overflowing.
- This attribute is not valid for ASCII documents.

message (Default Document Only)

Provides a message associated with this default document.

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that contains information about this default document.

Default Value

No default value

mvs-class

See **class**.

mvs-destination

For jobs originating on MVS systems and directed to InfoPrint, this attribute can be used to contain the value specified for the MVS **dest** parameter. InfoPrint can print the destination information on an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Destination

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a one-to-eight character destination name.

Default Value

No default value

Usage Guidelines

- See the *PSF/MVS: MVS Download Guide* for further information, including restrictions, on the MVS **dest** parameter.
- You can use this attribute in a shell script used with MVS Download.

mvs-forms

For jobs originating on MVS systems and directed to InfoPrint, this attribute can be used to contain the value specified for the MVS **forms** parameter. InfoPrint can print the forms information on an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Forms

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a one-to-eight character form name.

Default Value

If you do not specify a forms value when you submit the job from the MVS system, MVS defaults the value of the **forms** parameter to an installation-defined default.

Usage Guidelines

- See the *PSF/MVS: MVS Download Guide* for further information about the MVS **forms** parameter.
- You can use this attribute in a shell script used with MVS Download.

mvs-segment-id

For line-mode data jobs originating on MVS systems and directed to InfoPrint, this attribute can be used to contain the value specified for the MVS **segment** parameter. The **segment** parameter specifies that output data is segmented into separate data sets consisting of the number of pages specified by the parameter value.

GUI label

Segment ID

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a one-to-ten character segment identifier representing the page count.

Default Value

No default value

Usage Guidelines

- See the *PSF/MVS: MVS Download Guide* for further information, including restrictions, on the MVS **segment** parameter.
- You can use this attribute in a shell script used with MVS Download.

name-text

Specifies name information that InfoPrint prints in the **NAME:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Name

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the name information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 24 characters or less to make sure that there is enough room available on the printed page for all name information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

new-line-option

Identifies how the document input data delimits lines.

GUI label

New line option

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Metacode

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>FILEFORMAT</i>
counted-4-octet-aligned	RECORD (S/370 format record)
cr-and-lf	STREAM,(NEWLINE=CRLF)
lf	STREAM,(NEWLINE=LF)
record, <i>n</i>	RECORD,<i>n</i> (S/370 format record data where each line is <i>n</i> bytes long)

n is an integer from 1 to 32767

Default Value

If

Usage Guidelines

- This attribute is valid only for line-data documents.
- This attribute corresponds to the **fileformat** print submission parameter information for the **line2afp** transform.
- The Metacode DSS only supports the **counted-4-octet-aligned**, **If**, and **cr-and-lf** values.

new-line-option-data-encoding

Identifies the encoding for the input data line delimiters.

GUI label

New line option data encoding

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>FILEFORMAT</i>
utf-8	,UTF8
utf-16	,UTF16
ebcdic	,EBCDIC
ascii	,ASCII

Default Value

The default is determined by the type of data; that is, with ASCII data, the default is ASCII, and with EBCDIC data, the default is EBCDIC.

Usage Guidelines

- This attribute is ignored unless the value specified with **new-line-option** is **If** or **cr-and-lf**.
- This attribute is valid only for line-data documents.
- This attribute corresponds to the **fileformat** print submission parameter information for the **line2afp** transform.

node-id-text

Specifies node-identification information that InfoPrint prints in the **NODEID:** field of an auxiliary sheet.

GUI label

Node ID

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the node-identification information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 10 characters or less to make sure that there is enough room available on the printed page for all node-identification information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

number-up

Specifies the number of pages to print on a single side of the paper when the value of the **output-format** attribute is **side-by-side-copies** or **simple-n-up**.

GUI label

Number up

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
imposition-simple-1-up	1up
imposition-simple-2-up	2up
imposition-simple-3-up	3up
imposition-simple-4-up	4up

Default Value

No default value

Usage Guidelines

- In two-sided jobs, the number of pages printed on each sheet is twice the **number-up** value.
- This attribute is not valid for ASCII documents.
- This attribute is not valid for psf-command or other-driver destinations..
- If you specify a value for the document **form-definition** attribute, InfoPrint ignores the **number-up** attribute and uses the number-up value in the form definition.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **number-up-supported**.

object-class

Identifies the object class to which this object belongs.

DSS

All

Type

Non-settable, single-valued, per-job

Allowed Values

InfoPrint sets this value to **document** for a document or to **initial-value-document** for a default document.

Default Value

Document
document

Default document
initial-value-document

octet-count (Document Only)

Specifies the document size in octets (bytes).

GUI label

Size (Bytes)

DSS

All

Type

Non-settable, single-valued, per-document

Allowed Values

InfoPrint computes this value when it creates the document. The value can be an integer from 0 to 9223372036854775800.

Default Value

The size of the document in bytes (octets).

Usage Guidelines

- InfoPrint uses this attribute to compute total octet count for a job and to provide information about this document.
- InfoPrint compares the **file-size-range-supported** actual destination attribute to this attribute for validation and scheduling.
- For jobs consisting of two or more documents, you can query for the octet count of each document in the job by specifying **-r octet-count** with the **pdls** command.

offset-stacking-between-job-copies

See **jog-between-job-copies**.

orientation

See **content-orientation**.

originating-company-text

Specifies the name of the sending company that appears on the fax cover sheet that maps to a user-defined customizable field. For more information on Generalized Fax, see *InfoPrint Manager for AIX: Using Generalized Fax*.

DSS

Generalized Fax

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4095 characters long that contains the name of the sending company.

Default Value

No default value

other-options

See **destination-pass-through**.

other-transform-options

Lets you submit options for the transform that converts this document to the AFP data stream.

GUI label

Transform options

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Metacode

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a text string of up to 255 characters that contains the transform options.

Default Value

No default value

Usage Guidelines

See “InfoPrint transform commands” on page 245 for information about transform options.

output-appearance

Use the **halftones** attribute to specify the **output-appearance** attribute values. (See “halftone” on page 729 for more information.) The **output-appearance** attribute is supported to maintain downward compatibility, but it is not the recommended attribute for specifying the desired style of the printed document.

Identifies the desired style of the printed document.

DSS

PSF

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a customized value or one of these fixed values:

- **standard**
- **acutone**
- **highlight-midtones**
- **dark**
- **dark2**

Default Value

No default value

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PDF, PostScript, and TIFF documents.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **output-appearances-supported**.

output-bin

Specifies the name of the output bin to which you want InfoPrint to direct the output from your job.

GUI label

Output bin requested

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter an output bin name of up to 255 characters that contains the name of an output bin, such as top or staple.

Default Value

No default value

Usage Guidelines

- The value you specify for the **output-bin** attribute overrides any output bin specified in the form definition InfoPrint uses to process the job.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- For PSF, InfoPrint validates and schedules jobs using this attribute against the **output-bins-supported** actual destination attribute, which InfoPrint sets according to the values supplied for the **output-bin-numbers** PSF actual destination attribute.
- For PSF, InfoPrint maps the value to an actual bin number using the actual destination attribute **output-bin-numbers**.
- For InfoPrint 2000,
 - If you don't specify this attribute or the **job finishings=booklet-stitch-and-fold** or the **booklet-stitch-fold-and-trim** attribute, InfoPrint uses the output bin specified in the destination attribute.
 - If a job requests stapling or some other finishing, the job goes to the appropriate finishing output bin regardless of what output bin is specified with the **output-bin** attribute.
 - If a job specifies a finishing output bin and no finishing is specified, the job is printed and sent to the top bin.

output-color-management-resource

Specifies the information for the output (instruction) color resource.

GUI label

Output color management resource

DSS

PSF

Type

Resettable, single-valued, per-document

Allowed Values

You can enter any valid output color resource values, including ICC Profiles, ICC Profile file names, Color Management Resource (CMR) short names, CMR file names, and CMR long names.

Default Value

No default value

Usage Guidelines

- This attribute is used to support color resource management.
- Use this attribute together with the **color-rendering-intent**, **destination-model**, and **resource-context** attributes.
- In normal processing, specify an **input-color-management-resources** attribute along with an associated **output-color-management-resources** attribute. If one is

specified without the other, there will not be any error and InfoPrint will use the internal default values as the not specified attribute values at the transform level.

- If you do not specify the **input-color-management-resources** document/default document attribute and the **output-color-management-resource** attribute, and you specify the **output-color-management-resource-tag** document/default document attribute, InfoPrint will ignore the **output-color-management-resource-tag** attribute.
- If you specify the **output-color-management-resource** as an ICC Profile instead of an AFP CMR, InfoPrint will ignore the **output-color-management-resource-tag** and **output-color-management-resource-inline** attributes at the transform level.

output-color-management-resource-inline

Specifies whether the output Color Management Resource (CMR) will be placed inline with the data stream.

GUI label

Place CMR inline

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- This attribute is used to support color resource management.
- Use this attribute together with the **color-rendering-intent**, **destination-model**, and **resource-context** attributes.
- If you specify the **output-color-management-resource-inline** attribute but do not specify the **output-color-management-resource-tag** attribute, InfoPrint will ignore the **output-color-management-resource-inline** attribute at the transform level.
- If you specify the **output-color-management-resource** as an ICC Profile instead of an AFP CMR, InfoPrint will ignore the **output-color-management-resource-tag** and **output-color-management-resource-inline** attributes at the transform level.

output-color-management-resource-tag

Specifies how the output AFP will be tagged with color information.

GUI label

Tag output CMR

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

none There will be no tagging in the output AFP.

normal

InfoPrint will tag the output AFP as an input (audit) Color Management Resource (CMR).

passthru

InfoPrint will tag the output AFP as both an input (audit) CMR and an output (instruction) CMR.

Default Value

No default value

Usage Guidelines

- This attribute is used to support color resource management.
- Use this attribute together with the **color-rendering-intent**, **destination-model**, and **resource-context** attributes.
- If you do not specify the **input-color-management-resources** and **output-color-management-resource** attributes, and specify the **output-color-management-resource-tag** attribute, InfoPrint will ignore the **output-color-management-resource-tag** attribute.
- If you specify the **output-color-management-resource-inline** attribute but do not specify the **output-color-management-resource-tag** attribute, InfoPrint will ignore the **output-color-management-resource-inline** attribute at the transform level.
- If you specify the **output-color-management-resource** as an ICC Profile instead of an AFP CMR, InfoPrint will ignore the **output-color-management-resource-tag** and **output-color-management-resource-inline** attributes at the transform level.

output-format

Used with the **number-up** attribute to specify how pages should be imposed on a sheet of paper.

GUI label

Layout format

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can specify one of these fixed values:

- **side-by-side-copies**
- **simple-n-up**
- **booklet-print**
- **booklet-print-with-integrated-cover**
- **slit-and-merge**

Default Value

No default value

Usage Guidelines

- If the **output-format** attribute is specified for a certain document, do not mix this document with any other documents.
- **side-by-side-copies** and **simple-n-up** both print as many pages on one sheet as the **number-up** value allows.
 - **side-by-side-copies** prints multiple copies of one page on the sheet.
 - **simple-n-up** prints multiple pages on the sheet in numerical order.
- **booklet-print** and **booklet-print-with-integrated-cover** arrange pages like this:

Page 2 backed by Page 1	Page n-1 backed by Page n
-------------------------------	---------------------------------

so that when the sheet is folded in half and collated with the rest of the booklet, the pages appear in sequence.

To print a booklet with a pre-printed cover, specify **insert** as the document format of the first document in the job. The first document in the job must contain at least one page, but no more than four pages.

Note: When the InfoPrint server adds blank pages to the job to make it a multiple of four with **booklet-print-with-integrated-cover**, InfoPrint adds the blank pages inside of the back cover.

For PSE, to saddle-stitch the booklet, specify a value of **saddle-stitch** for the **job-finishing** job attribute.

For InfoPrint 2000, specify **job-finishing=booklet-stitch-and-fold** or **booklet-stitch-fold-and-trim** to send the booklet to the bookletmaker finishing device.

booklet-print does not require a value for **number-up**.

- For **booklet-print-with-integrated-cover**, any blank page that needs to be added to get a multiple of four will be placed before the last two pages of the job.

- **slit-and-merge** arranges pages like this:

Page 1 backed by Page 2	Page 3 backed by Page 4
-------------------------------	-------------------------------

so that when the sheet is cut in half and the left half is stacked on top of the right half, the pages appear in sequence.

slit-and-merge does not require a value for **number-up**.

- You can specify one-sided or two-sided printing and simplex or tumble with any of these formats except **booklet-print**.
- This attribute is not valid for ASCII or KGL documents, or any combination of these documents.
- If you specify a value for the document **form-definition** attribute, InfoPrint ignores the **output-format** attribute and uses the value in the form definition.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **output-format-supported**.
- Do not use **booklet-print** or **booklet-print-with-integrated-cover** with a job ticket. The other output formats listed with **output-format** should be used with caution with job tickets, because the other output formats apply to signatures and not individual pages.
- The value specified with the **output-format** attribute is the starting output format; values specified with the **explicit-page-placement** attribute can change the output-format.

overlay

Specifies the name of an overlay that InfoPrint uses for each sheet-side in the document.

GUI label

Medium overlay

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter an overlay name up to eight characters.

Default Value

No default value

Usage Guidelines

- This overlay prints in addition to any overlay specified by the form definition for the job.

- When a form definition is not specified for the job, this overlay prints in addition to the overlays specified in the **overlay-front** and **overlay-back** attributes.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- For PSF actual destinations, the value you specify for this attribute overrides any overlay selection in the data stream or form definition, with one exception. If you specify different values for this attribute for each document in a job, and also specify a value for the document **form-definition** attribute, InfoPrint ignores the different values and uses the medium selection in the form definition.

overlay-back

Specifies the name of an overlay that InfoPrint uses for the back of each sheet in the document.

GUI label

Medium overlay for back side

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter an overlay name up to eight characters.

Default Value

No default value

Usage Guidelines

- This attribute is not valid for ASCII documents.
- When a form definition is specified for the job, an overlay specified with **overlay-back** is ignored.

overlay-front

Specifies the name of an overlay that InfoPrint uses for the front of each sheet in the document.

GUI label

Medium overlay for front side

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter an overlay name up to eight characters.

Default Value

No default value

Usage Guidelines

- This attribute is not valid for ASCII documents.
- When a form definition is specified for the job, an overlay specified with **overlay-front** is ignored.

page-count (Document Only)

Specifies the estimated length of the document in pages.

GUI label

Page count

DSS

All

Type

Resettable, single-valued, per-document

Allowed Values

You can enter an integer from 1 through 2147483647.

Default Value

When InfoPrint can determine a page count from the PostScript or PCL input, InfoPrint sets the page count in this attribute.

Usage Guidelines

- InfoPrint determines the size of a job based on the total number of octets (bytes) in the job. For operator job-management purposes, you can find that job size based on pages is easier.
- InfoPrint uses the value specified with the **page-count** attribute and the value specified with the **copy-count** document attribute (and the **job-copies** component in the **results-profile**) to calculate the value for the **job-page-count** attribute.
- Transforms called by transform objects can change the page count of a document. For more information, see “Using the transform_update utility” in the appropriate InfoPrint Manager procedures manual.

- InfoPrint Manager updates the page count of a document with the page count function that is enabled with the **count-job-pages** server attribute.
- The **page-count** attribute includes the separator pages only when the separator page support is enabled.

page-definition

Identifies the page definition used when printing a line-data document.

GUI label

Page definition

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a text string of up to 8 characters that contains the name of the desired page-definition resource.

Default Value

No default value

Usage Guidelines

You must supply a value for this attribute for line-data documents. It is not valid for any other document format.

page-media-select

Use the **default-medium** attribute or default to the medium specified in the data stream or form definition.

DSS

PSF

page-select (Document Only)

Specifies the first and last page of a document that InfoPrint prints.

GUI label

Pages to process

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Metacode

Type

Resettable, single-valued, complex, per-document

Syntax

first-page:last-page

Separate the values with a colon, for example:

25:48

You can omit the first-page value or the last-page value, for example:

:6

10:

See "Usage Guidelines".

Components

- **first-page:** Specifies the number of the page where printing starts.

GUI label

Lower limit

Type Single-valued

Allowed Values

You can enter a value of 1 through 2147483647.

Default Value

No default value

- **last-page:** Specifies the number of the page where printing ends.

GUI label

Upper limit

Type Single-valued

Allowed Values

You can enter a value of 1 through 2147483647.

Default Value

No default value

Usage Guidelines

- Page numbering always starts at one (1) even if the job you print uses an alternate numbering system, such as roman numerals or folio-by-chapter (1-1, 1-2, and so on) numbering. You cannot request a range of pages using page numbers from an alternate numbering system.
- This attribute is not valid for ASCII or KGL documents.
- If you omit the first-page value, for example **:6**, InfoPrint prints from the first page of the job through page 6.
- If you omit the last-page value, for example **6:**, InfoPrint prints from page 6 through the last page of the job.
- Entering a combination of first-page last-page values where the first-page value is greater than the last-page value is an error.
- If InfoPrint cannot find the first-page value in the document, no pages print and InfoPrint issues an error.

- If InfoPrint cannot find the last-page value in the document, it prints pages from first-page value to the end of the document. InfoPrint does not issue an error.
- For jobs with **document-format=dpf-ipds**, the **first-page** value is only applied to the *first copy*, and all following copies start at page 1.
- For jobs with **document-format=dpf-ipds**, the **last-page** value is always ignored.

plex

Indicates whether InfoPrint conditions the page images of this document for one-sided or two-sided printing and the relative orientation of consecutive pages.

GUI label

Plex to print

DSS

AIX, BSD, PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

- **simplex**
- **tumble**

Default Value

AIX The first value listed in the destination attribute **plexes-supported**

BSD No default value

2000 **simplex**

PSF **simplex**

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **plexes-supported**.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- InfoPrint uses this attribute in combination with the **sides** attribute. The results are:

<i>plex Value</i>	<i>sides Value</i>	<i>Output</i>
simplex	1	Simplex
simplex	2	Duplex
tumble	1	Not valid
tumble	2	Tumble duplex

- InfoPrint uses plex specifications in this order:

1. The **plex** document attribute unless you specify different values for this attribute for each document in a job, and also specify a value for the document **form-definition** attribute. In that case, InfoPrint ignores the **plex** document attribute.
2. The plex specification in the document or default document form definition.
3. The plex specification in the actual destination form definition.
4. **plex** actual destination attribute.

print-quality

Specifies the desired output quality of the printed document.

GUI label

Print quality

DSS

AIX, BSD

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

- **draft**
- **high**
- **normal**

Default Value

normal

Usage Guidelines

InfoPrint validates and schedules jobs using this attribute against the destination attribute **print-qualities-supported**.

printer-initial-value-document (Document Only)

See **destination-initial-value-document**.

printer-pass-through

See **destination-pass-through**.

programmer-text

Specifies programmer information that InfoPrint prints in the **PROGRAMMER:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Programmer

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the programmer information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you specify to 24 characters or less to make sure that there is enough room available on the printed page for all programmer information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

resource-context

Defines the directory path location for all document-specific resources: fonts, form definitions, overlays, page definitions, page segments, color management resources (CMRs), and presentation object containers.

GUI label

Location of resources

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter the name of a resource-context object, a CMR, or a text string of up to 255 characters that contains a specific directory path name for resources.

For more information about how InfoPrint searches file extensions for resources, see “Creating and Managing Resource-Context Objects” in *InfoPrint Manager for AIX: Procedures* or *InfoPrint Manager for Windows: Procedures*.

Syntax

path:path on AIX

path;path on Windows

Separate multiple paths with a colon on AIX or a semicolon on Windows, for example with AIX:

/res:/dept123/res

Default Value

With AIX, no default values, but InfoPrint always searches */usr/lpp/psf/reslib*.

With Windows, no default values, but InfoPrint always searches *install_path\reslib*.

Usage Guidelines

- Because InfoPrint searches the path specified by this attribute *after* the individual paths for different types of resources, you can use this attribute to locate default resources.
- You can use this attribute instead of specifying individual values for:
 - **resource-context-font**
 - **resource-context-form-definition**
 - **resource-context-overlay**
 - **resource-context-page-definition**
 - **resource-context-page-segment**
 - **resource-context-presentation-object-container**
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-font**, **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, **resource-context-page-segment**, or **resource-context-presentation-object-container** document attribute, as appropriate for the type of resource
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-font**, **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, **resource-context-page-segment**, or **resource-context-presentation-object-container** actual destination attribute, as appropriate for the type of resource
 6. With AIX:
 - a. */usr/lpp/psf/reslib*
 - b. */usr/lpp/ipfonts*
 - c. */usr/lpp/afpfonts*
 - d. */usr/lpp/psf/fontlib*
 7. With Windows, where *install_path* indicates the path where you installed InfoPrint Manager for Windows:
 - a. *install_path\reslib*
 - b. *install_path\ipfonts*
 - c. *install_path\afpfonts*
 - d. *install_path\fontlib*

- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.
- When using Color Mapping Tables with InfoPrint Manager, you must identify the path for your table explicitly. There is no default path for Color Mapping Tables.

resource-context-font

Defines the directory path location of the document-specific fonts.

GUI label

Location of fonts

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter the name of a resource-context object or a text string of up to 255 characters that contains a specific directory path name for fonts.

Syntax

path:path on AIX
path;path on Windows

Separate multiple paths with a colon on AIX or a semicolon on Windows, for example with AIX:

`/fonts:/dept123/fonts`

Default Value

With AIX, no default values, but InfoPrint always searches `/usr/lpp/psf/reslib`.

With Windows, no default values, but InfoPrint always searches `install_path\reslib`.

Usage Guidelines

- You can specify fonts either in the job or in a page definition for the job.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-font** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-font** actual destination attribute
 6. With AIX:
 - a. `/usr/lpp/psf/reslib`

- b. `/usr/lpp/ipfonts`
 - c. `/usr/lpp/afpfonts`
 - d. `/usr/lpp/psf/fontlib`
7. With Windows, where *install_path* indicates the path where you installed InfoPrint Manager for Windows:
- a. *install_path*\reslib
 - b. *install_path*\ipfonts
 - c. *install_path*\afpfonts
 - d. *install_path*\fontlib
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

resource-context-form-definition

Defines the directory path location of the document-specific form definitions.

GUI label

Location of form definitions

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter the name of a resource-context object or a text string of up to 255 characters that contains a specific directory path name for form definitions.

Syntax

path:path on AIX
path;path on Windows

Separate multiple paths with a colon on AIX and a semicolon on Windows, for example with AIX:

```
/form_definition:/dept123/form_definition
```

Default Value

With AIX, no default values, but InfoPrint always searches `/usr/lpp/psf/reslib`.

With Windows, no default values, but InfoPrint always searches *install_path*\reslib.

Usage Guidelines

- You can use either the document or the actual destination **form-definition** attribute to specify the form definition.
- InfoPrint searches paths in this order:

1. **resource-context-user** document attribute
 2. **resource-context-form-definition** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-form-definition** actual destination attribute
 6. For InfoPrint Manager for AIX, **/usr/lpp/psf/reslib**; for InfoPrint Manager for Windows, *install_path*\reslib.
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

resource-context-overlay

Defines the directory path location of the document-specific overlays.

GUI label

Location of overlays

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter the name of a resource-context object or a text string of up to 255 characters that contains a specific directory path name for overlays.

Syntax

path:path on AIX
path;path on Windows

Separate multiple paths with a colon on AIX and a semicolon on Windows, for example with AIX:

/overlay:/dept123/overlay

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches *install_path*\reslib.

Usage Guidelines

- You use a form definition for the job to specify the overlay.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-overlay** document attribute
 3. **resource-context** document attribute

4. **PSFPATH** environment variable
 5. **resource-context-overlay** actual destination attribute
 6. For InfoPrint Manager for AIX, **/usr/lpp/psf/reslib**; for InfoPrint Manager for Windows, **install_path\reslib**.
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

resource-context-page-definition

Defines the directory path location for the document-specific page definitions.

GUI label

Location of page definitions

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter the name of a resource-context object or a text string of up to 255 characters that contains a specific directory path name for page definitions.

Syntax

path:path on AIX

path;path on Windows

Separate multiple paths with a colon on AIX and a semicolon on Windows, for example with AIX:

```
/page_definition:/dept123/page_definition
```

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches **install_path\reslib**.

Usage Guidelines

- This attribute is valid only for line-data documents.
- You use the **page-definition** document attribute to specify the page definition for the job.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-page-definition** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable

5. **resource-context-page-definition** actual destination attribute
 6. For InfoPrint Manager for AIX, **/usr/lpp/psf/reslib**; for InfoPrint Manager for Windows, **install_path\reslib**.
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

resource-context-page-segment

Defines the directory path location of the document-specific page segments.

GUI label

Location of page segments

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter the name of a resource-context object or a text string of up to 255 characters that contains a specific directory path name for page segments.

Syntax

path:path for AIX
path;path for Windows

Separate multiple paths with a colon on AIX and a semicolon on Windows, for example with AIX:

```
/page_segment:/dept123/page_segment
```

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches **install_path\reslib**.

Usage Guidelines

- You specify the page segments in the job.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-page-segment** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-page-segment** actual destination attribute
 6. For InfoPrint Manager for AIX, **/usr/lpp/psf/reslib**; for InfoPrint Manager for Windows, **install_path\reslib**.

- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

resource-context-presentation-object-container

Defines the directory paths that InfoPrint searches for color management resources (CMRs) and presentation object containers (called data object resources in the *IPDS Reference*, such as EPS, IOCA images, or PDF pages) for the document.

GUI label

Location of presentation object containers

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter the name of a resource-context-presentation object or a CMR, or enter a text string up to 255 characters long that defines the directory path to the resource-context-presentation object.

Syntax

path:path for AIX
path;path for Windows

Separate path names with colons on AIX, for examples:

- /dor:/dept123/presentation-object-container
- /cmr:/dept321/color-management-resource

Separate path names with semicolons on Windows, for examples:

- d:\dor;d:\dept123\presentation-object-container
- d:\cmr;d:\dept321\color-management-resource

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches *install_path*\breslib.

Usage Guidelines

- You specify the presentation objects the in the job.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute
 2. **resource-context-presentation-object-container** document attribute
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable

5. **resource-context-presentation-object-container** actual destination attribute
 6. For AIX, **/usr/lpp/psf/reslib**
 7. For Windows, **install_path\reslib**
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

resource-context-user

Defines the directory path location for all document-specific resources: color management resources (CMRs), fonts, form definitions, overlays, page definitions, page segments, and presentation object containers.

GUI label

Location of document resources

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter the name of a resource-context object, a CMR, or a text string of up to 255 characters that contains a specific directory path name for resources.

Syntax

path:path for AIX
path;path for Windows

Separate multiple paths with a colon on AIX and a semicolon on Windows, for example with AIX:

/res:/dept123/res

Default Value

With AIX, no default values, but InfoPrint always searches **/usr/lpp/psf/reslib**.

With Windows, no default values, but InfoPrint always searches *install_path\reslib*.

Usage Guidelines

- This attribute is valid only for line-data documents.
- You should use this attribute only to migrate the PSF for AIX job script keyword **userlib**.
- InfoPrint searches paths in this order:
 1. **resource-context-user** document attribute

2. **resource-context-font**, **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, or **resource-context-page-segment** document attribute, as appropriate for the type of resource
 3. **resource-context** document attribute
 4. **PSFPATH** environment variable
 5. **resource-context-font**, **resource-context-form-definition**, **resource-context-overlay**, **resource-context-page-definition**, or **resource-context-page-segment** actual destination attribute, as appropriate for the type of resource
 6. With AIX:
 - a. **/usr/lpp/psf/reslib**
 - b. **/usr/lpp/afpfonts**
 - c. **/usr/lpp/psf/fontlib**
 7. With Windows, where *install_path* indicates the path where you installed InfoPrint Manager for Windows:
 - a. *install_path*\reslib
 - b. *install_path*\afpfonts
 - c. *install_path*\fontlib
- If InfoPrint cannot find the resource because none of the paths contain the resource, it still processes the job and prints error messages at the end of the job. InfoPrint reports the job as completed.

resource-exit

Specifies the name or the full path name of the resource exit program that InfoPrint uses to retrieve resources for this line-data document. If you specify the file name without a path, InfoPrint searches for the exit program in the paths specified by the **PATH** environment variable. If you do not specify this option, the InfoPrint does not use a resource exit program.

GUI label

Resource exit program

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter any valid input record exit program name. The exit program name is case-sensitive.

Default Value

No default value

Usage Guidelines

This attribute is valid only for line-data documents.

reverse-page-order

Indicates whether this document should print the pages in reverse order, that is, last page first.

GUI label

Reverse page order

DSS

PSF, Generalized Fax, Email, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When you use **reverse-page-order**, there will be a delay before a document begins printing because the entire document must rip before the pages can be printed in reverse order.
- When you use **reverse-page-order**, the **explicit-page-placement** attribute and the form definition can be affected. While the **reverse-page-order** attribute reverses the order of the pages in the job, it does not alter the layout that InfoPrint uses for the job. This can result in the pages of the job appearing in different positions on the sheet than if **reverse-page-order** were not used. For example, with a two page job, if the form definition has the front page offset by a certain amount, but not the back page, then after reversing the job, page 2, which is now first to be output will be offset instead of page 1, which is now on the back of the sheet. To fix this, the form definition, **explicit-page-placement** attribute, and other attributes (such as, **overlay**, **overlay-front**, **overlay-back**, **x-image shift**, **x-image-shift-back**, **y-image-shift**, and **y-image-shift-back**) should be modified to get the correct placement of the pages on the output sheets. This modification needs to be done by the user or system administrator.
- The **reverse-page-order** attribute does not apply to ASCII or booklet jobs.
- When using **reverse-page-order** with simplex jobs, a blank page might be added at the front of the document if the document has an odd number of pages.

- When using **reverse-page-order** with **slit-and-merge** value on the **output-format** attribute, a blank sheet might be added if more than one blank page would be needed to make the document a multiple of 4 pages. For instance, if the document has 1 or 2 pages, 5 or 6 pages, 9 or 10 pages, then a blank sheet will be added to the end of the reversed job, after the first page from the input file. This would mean when flipping the output over, the blank sheet is in front of page 1. For cases where no pages need to be added, or only one page needs to be added, as in the case of a 7 or 8 page document, the output will not contain any blank sheets.

room-text

Specifies room information that InfoPrint prints in the **ROOM:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Room

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the room information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 24 characters or less to make sure that there is enough room available on the printed page for all room information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

scanner-correction

Indicates how you calibrated the scanner used to scan input images so that InfoPrint can make the appropriate modifications to halftones.

GUI label

Scanner correction

DSS

PSF

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

- **Ricoh420**
- **XeroxDocuimage620S**
- **none**

Default Value

No default value

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PDF, PostScript, and TIFF documents.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **scanner-corrections-supported**.

screen-frequency

Use the **halftones** attribute to specify the **screen-frequency** attribute values. (See “halftone” on page 729 for more information.) The **screen-frequency** attribute is supported to maintain downward compatibility, but it is not the recommended attribute for specifying the screen frequency to use for printing halftones.

Indicates the screen frequency, in lines per inch, to use for printing halftones.

DSS

PSF

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

- **71**
- **85**
- **106**
- **141**

Default Value

85

Usage Guidelines

- This attribute is valid only for GIF, JPEG, PDF, PostScript, and TIFF documents.
- Change the screen frequency if you see moire or two-dimensional repeating patterns in halftone images.

- Set the screen frequency to **106** if you see dark and light bands in printed output, with halftone images possibly showing a herringbone pattern under magnification.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **screen-frequencies-supported**.

segment-file-size

Specifies the minimum size in kilobytes of the segment files into which InfoPrint breaks jobs for processing.

GUI label

Size of segment file (KBytes)

DSS

PSF

Type

Resettable, single-valued, per-job

Allowed Values

You can enter an integer from 1 to 102400.

Default Value

100

Usage Guidelines

- Small values can adversely affect performance; large numbers can detract from InfoPrint's ability to send the beginning of a job to a destination while still processing the remainder of the job.
- This attribute is not valid for ASCII documents.

sequence-number (Document Only)

See **document-sequence-number**.

shared-formdef

For MO:DCA-P documents originating on MVS systems and directed to InfoPrint through the MVS Download program, this attribute indicates whether the form definition used to print or send this document should be processed the same way as PSF/MVS would process it.

GUI label

Process form definitions same as MVS

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

Default Document

No default value

Document

false

Usage Guidelines

- A value of **true** ensures consistent page placement when multiple pages are printed or sent on a single side of the sheet.
- The value of **false** is provided only for backwards compatibility with some applications designed for the PSF for AIX product, which is no longer marketed or supported.

shift-out-shift-in

Specifies the printer scanning modes used when processing EBCDIC line-data that prints with either a single-byte or a double-byte font.

GUI label

Shift-out shift-in processing

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter an 8-character alphanumeric string, which is passed to all ACIF user exits, or one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
one	The line2afp transform uses a value of SOSI1 for the prmode= parameter. It converts each shift-out, shift-in code to a blank and a Set Coded Font Local text control.
two	The line2afp transform uses a value of SOSI2 for the prmode= parameter. It converts each shift-out, shift-in code to a Set Coded Font Local text control.

See “line2afp command: transforms traditional line data and ASCII data to AFP” on page 330 for more information about the **prmode=** parameter of the **line2afp** transform. Refer to *AFP Conversion and Indexing Facility: User’s Guide* for information about ACIF user exits.

Default Value

No default value

Usage Guidelines

- This attribute is valid only for line-data documents.
- For the shift-in, shift-out process to work correctly, two coded fonts must be specified by the **chars** attribute or the page definition. The first must be a single-byte font and the second must be a double-byte font.

sides

Specifies the number of media sides on which this document prints.

GUI label

Sides to print

DSS

AIX, BSD, PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter an integer value of **1** or **2**.

Default Value

AIX 1

BSD No value; the printer device defaults the value

PSF The value in the form definition

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **sides-supported**.

- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- InfoPrint uses this attribute in combination with the **plex** attribute. The results are:

<i>sides Value</i>	<i>plex Value</i>	<i>Output</i>
1	simplex	Simplex
2	simplex	Duplex
1	tumble	Not valid
2	tumble	Tumble duplex

- InfoPrint uses sides specifications in this order:
 1. The **sides** document attribute, unless you specify different values for this attribute for each document in a job and also specify a value for the **form-definition** document attribute. In that case, InfoPrint ignores the **sides** document attribute.
 2. The sides specification in the document or default document form definition.
 3. The **sides** actual destination attribute.

start-on-new-sheet

Indicates whether to start printing this document on a new sheet of paper.

GUI label

Start on new sheet

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- This attribute is not valid for ASCII documents.
- When you print multiple-document jobs and do not want blank pages between the end of one document and the beginning of the next, set this attribute to **false**.

- If you specify a form definition, it takes priority over the **start-on-new-sheet** attribute, and any value you specify with **start-on-new-sheet** is ignored. InfoPrint ignores the **start-on-new-sheet** attribute and uses the value in the form definition.

subject-text

Specifies the subject text that appears on the cover sheet of fax jobs or the subject line of electronic mail jobs maps to a user-defined customizable field. For more information about Generalized Fax, see *InfoPrint Manager for AIX: Using Generalized Fax*.

DSS

Email, Generalized Fax

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string up to 4095 characters long that contains the subject.

Default Value

No default value

table-reference-characters

Specifies whether the first character of each line in the document (or second character, if carriage control characters are used) is a table reference character. A table reference character selects a font character set named by the **chars** attribute or in the page definition used to print the job.

GUI label

Table reference characters

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value

Usage Guidelines

- This attribute is valid only for line-data documents.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **table-reference-characters-supported**.
- If the value of this attribute is **true** and the page definition does not identify fonts, you must specify fonts with the **chars** attribute.
- If the line data contains TRCs and you do not specify this attribute, your printed output will not be correct. InfoPrint interprets the TRCs as text characters instead of font identifiers.

title-text

Specifies title information that InfoPrint prints in the **TITLE:** field of an auxiliary sheet if the job uses the **full** auxiliary-sheet object.

GUI label

Title

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the title information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 55 characters or less to make sure that there is enough room available on the printed page for all title information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

transfer-method (Document Only)

Identifies the method by which InfoPrint transfers the document to the print server.

GUI label

Transferred to server

DSS

All

Type

Initially settable, single-valued, per-job

Allowed Values

You can enter one of these fixed values:

- **pipe-pull**
- **with-request**

Default Value

pipe-pull

Usage Guidelines

InfoPrint validates jobs using this attribute against the server attribute **transfer-methods-supported**.

transform-message-file-name

Specifies the file name where the transform that InfoPrint uses to process this document writes messages.

GUI label

Transform message file

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a text string of up to 4095 characters that contains the file name.

Default Value

No default value. If you do not specify this attribute or if it has no value, the transform writes messages to **\$PDBASE/servername/error.log** for InfoPrint Manager for AIX and **\workspace path\servername\error.log** for InfoPrint Manager for Windows.

Usage Guidelines

- This attribute is valid only for line-data documents.
- This attribute is not valid for ASCII documents.

transform-output-file-name

Specifies the file name of the output file produced by the InfoPrint transform that converts this document to the AFP data stream.

GUI label

Transform output file name

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a text string of up to 4095 characters that contains the file name.

Default Value

No default value unless the output format is **side-by-side-copies** or **booklet-print**. In that case, InfoPrint saves the transformed file in the directory specified by the **PDBASE** environment variable or in one of its subdirectories.

Usage Guidelines

- Use this attribute to save transformed files.
- Transform programs write output to a temporary file in the directory specified by the **PDBASE** environment variable or in one of its subdirectories. No single user can create a file larger than the amount of free space in the file system containing this directory. If many users are submitting print jobs that invoke transform programs, the directory might fill up and prevent all users from successfully running the transform programs.

type (Document Only)

See **document-type**.

user-id-text

Specifies user-identification information that InfoPrint prints at the top of the page and in the **USERID:** field of an auxiliary sheet.

GUI label

User ID

DSS

PSF, Metacode

Type

Resettable, single-valued, per-job

Allowed Values

You can enter a text string of up to 4095 characters that contains the user-identification information.

Default Value

No default value

Usage Guidelines

- While you can specify more characters, you should limit the value you supply to 10 characters or less to make sure that there is enough room available on the printed page for all user-identification information.
- If the text string you specify contains blank spaces, enclose the text string in single quotation marks.

x-image-shift

Specifies the X offset, in millimeters, of the logical page origin to the right of the physical page origin.

GUI label

Move image right (inches) or (mm)

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a numeric value from -2147483647 to 577.97 mm.

The value you specify is in the form *nnnn.nnn*, which is a number that can optionally contain a decimal point. Millimeters is the unit of measure for the value you specify.

Default Value

No default value

Usage Guidelines

- This attribute overrides any X-offset value in the form definition InfoPrint uses for the job, with one exception. If you specify different values for this attribute for each document in a job, and also specify a value for the document **form-definition** attribute, InfoPrint ignores the **x-image-shift** attribute and uses the X-offset value in the form definition.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- InfoPrint validates and schedules jobs using this attribute against the **x-image-shift-range-supported** actual destination attribute.
- This attribute is ignored if the **explicit-page-placement** and **output-format** attributes are specified.

x-image-shift-back

Specifies the X offset, in millimeters, of the logical page origin to the right of the physical page origin on the back side of a double-sided sheet.

GUI label

Move image right on back side (inches) or (mm)

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a numeric value from -2147483647 to 577.97 mm.

The value you specify is in the form *nnnn.nnn*, which is a number that can optionally contain a decimal point. Millimeters is the unit of measure for the value you specify.

Default Value

No default value

Usage Guidelines

- This attribute is not valid for ASCII documents.
- If you specify a value for the document **form-definition** attribute, InfoPrint ignores the **x-image-shift-back** attribute and uses the X-offset value in the form definition. This attribute overrides the X-offset value in any other form definition.
- InfoPrint validates and schedules jobs using this attribute against the **x-image-shift-range-supported** actual destination attribute.
- This attribute is ignored if the **explicit-page-placement** and **output-format** attributes are specified.

xsl-style-sheet

Identifies the file name of the XSL style sheet used for the XML document. This name can contain full path information, URL information, or just the file name. If you only specify the file name, InfoPrint Manager uses the path specified on the document's **resource-context** attribute to locate the file. When you specify a file name, the XSL style sheet must be located on the server where the **xml2afp** or **xml2pdf** transform runs.

GUI label

XSL style sheet

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Settable, single-valued, per-document

Allowed Values

You can enter a text string of up to 4095 characters that contains the XSL style sheet information.

You can specify a value of **none** to indicate that a style sheet should be suppressed because it has been specified with XSL-FO data.

Default Value

No default value

Usage Guidelines

- If an XSL style sheet is specified on either the document or actual destination, it is used to process the XML file that was submitted, even if the file was already XSL-FO.
- If no style sheet is to be used, you should specify **none** for the **xsl-style-sheet** document or default document attribute.
- If you don't specify an XSL style sheet with the **xsl-style-sheet** document/default document attribute, InfoPrint Manager uses the XSL style sheet that you specify with the **xsl-style-sheet** actual destination attribute.
- InfoPrint Manager does not provide a default XSL style sheet.

y-image-shift

Specifies the Y offset, in millimeters, of the logical page origin below the physical page origin.

GUI label

Move image down (inches) or (mm)

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a numeric value from -2147483647 to 577.97 mm.

The value you specify is in the form *nnnn.nnn*, which is a number that can optionally contain a decimal point. Millimeters is the unit of measure for the value you specify.

Default Value

No default value

Usage Guidelines

- This attribute overrides any Y-offset value in the form definition InfoPrint uses for the job, with one exception. If you specify different values for this attribute for each document in a job, and also specify a value for the document **form-definition** attribute, InfoPrint ignores the **y-image-shift** attribute and uses the Y-offset value in the form definition.
- This attribute is valid for ASCII documents in a job only if it is not changed between documents in the job.
- InfoPrint validates and schedules jobs using this attribute against the **y-image-shift-range-supported** actual destination attribute.
- This attribute is ignored if the **explicit-page-placement** and **output-format** attributes are specified.

y-image-shift-back

Specifies the Y offset, in millimeters, of the logical page origin below the physical page origin on the back side of a double-sided sheet.

GUI label

Move image down on back side (inches) or (mm)

DSS

PSF, InfoPrint 2000

Type

Resettable, single-valued, per-document

Allowed Values

You can enter a numeric value from -2147483647 to 577.97 mm.

The value you specify is in the form *nnnn.nnn*, which is a number that can optionally contain a decimal point. Millimeters is the unit of measure for the value you specify.

Default Value

No default value

Usage Guidelines

- This attribute is not valid for ASCII documents.
- If you specify a value for the document **form-definition** attribute, InfoPrint ignores the **y-image-shift-back** attribute and uses the Y-offset value in the form definition. This attribute overrides the Y-offset value in any other form definition.
- InfoPrint validates and schedules jobs using this attribute against the **y-image-shift-range-supported** actual destination attribute.
- This attribute is ignored if the **explicit-page-placement** and **output-format** attributes are specified.

Attributes for jobs and default jobs

This section contains the attributes for default jobs and jobs.

Default job

Use default jobs to set default values for job attributes.

Default jobs contain two types of attributes:

- Attributes that describe the default job itself
- Attributes that you can set as default values for job attributes

Job

A job is an InfoPrint object that represents a request to print or send one or more documents in a single session.

Attributes not displayed in the InfoPrint Manager Administration GUI

While all job and default job attributes and attribute values are supported for both standard and basic InfoPrint installations, neither InfoPrint Manager Administration GUI displays a complete set.

- The standard InfoPrint Manager Administration GUI displays most attributes and attribute values of greatest interest to Data Center (Production Printing) InfoPrint administrators, but omits a few that are used primarily in basic InfoPrint installations.
- The basic InfoPrint Manager Administration GUI displays only the attributes of greatest interest to InfoPrint administrators.

You can list the values of attributes not displayed in the InfoPrint Manager Administration GUI using the **pdls** command or the **pdq** command. You can set the values of initially settable and resettable attributes using the **pdcreate**

command or the **pdpr** command. You can change the values of resettable attributes using the **pdmod** command or the **pdset** command.

Initially settable attribute listing

You can set these attributes with the **pdpr** command when you submit the job:

- **destination-name-requested**
- **initial-value-job**
- **job-originator**
- **job-owner**

Note: There are no initially settable attributes for a default job.

Resettable attribute listing

You can set these attributes with the **pdpr** command when you submit a job or with the **pdcreate** command when you create a default job. You can modify them with the **pdset** command after InfoPrint has accepted the job or after you create the default job. You can also use the **pdmod** command to modify a job after InfoPrint accepts it.

- **actual-destinations-requested**
- **auxiliary-sheet-selection**
- **delete-segment-list**
- **descriptor** (default job only)
- **destination-locations-requested**
- **destination-models-requested**
- **dss-requested**
- **estimated-processing-time** (job only)
- **forms**
- **job-batch**
- **job-client-id** (job only)
- **job-comment**
- **job-complexity** (job only)
- **job-deadline-time** (job only)
- **job-discard-time** (job only)
- **job-end-message**
- **job-finishing**
- **job-hold**
- **job-media-sheet-count** (job only)
- **job-message-from-administrator** (job only)
- **job-message-to-operator**
- **job-name**
- **job-page-count** (job only)
- **job-print-after** (job only)
- **job-priority**
- **job-retain-until** (job only)
- **job-retention-period**

- **job-rip-action**
- **job-ripped-by-server**
- **job-scheduling**
- **job-start-message**
- **job-start-wait**
- **list-of-managers** (default job only)
- **message** (default job only)
- **notification-profile**
- **optimize-for-multiple-copies**
- **record-count**
- **results-profile**
- **retain-forever**

actual-destinations-requested

Identifies a list of actual destinations, any one of which InfoPrint can use to process the job.

GUI label

Actual destinations requested

DSS

All

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **physical-printers-requested**.

Allowed Values

You can enter a text string of up to 255 characters, per value, that contains the name of an actual destination.

Default Value

No default value

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **destination-name**.
- If you request more than one actual destination, the job will process on the first one that becomes available that can support the job.

associated-server (Default Job Only)

Indicates the name of the server in which this default job is located in.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *ServerName*: portion of the argument used with the `pdcreate` command when this default job is created.

Default Value

No default value

auxiliary-sheet-selection

Identifies the combination of start, separator, and end sheets requested for this job. Whether InfoPrint prints the requested sheets depends on the actual destination.

GUI label

Auxiliary/Separator sheets

DSS

AIX, PSE, Passthrough, Metacode

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Start</i>	<i>Separator</i>	<i>End</i>
end	No	No	Yes
none	No	No	No
sep	No	Yes	No
sep-end	No	Yes	Yes
start	Yes	No	No
start-end	Yes	No	Yes
start-sep	Yes	Yes	No
start-sep-end	Yes	Yes	Yes

Default Value

Default job

No default value

Job **start-sep-end**

Usage Guidelines

InfoPrint validates and schedules jobs using this attribute against the destination attribute **auxiliary-sheet-selections-supported**.

comment

See **job-comment**.

completion-time (Job Only)

Identifies the time when the job completed printing or sending.

GUI label

Completed

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets the value for this attribute in the local time format; USA is "HH:MM:SS mm/dd/yy".

Default Value

No default value

Usage Guidelines

Provides status information.

creation-time (Job Only)

Identifies the time when the job was created. This value never changes even if the job is resubmitted to another server.

GUI label

Creation time

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets the value for this attribute in the local time format; USA is "HH:MM:SS mm/dd/yy".

Default Value

The time the job was created.

current-job-state (Job Only)

Identifies the current state of the job.

GUI label

State

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **job-state**.

Allowed Values

InfoPrint sets and updates this value as the job processes. The value set at a given time is one of these fixed values:

<i>Fixed Value</i>	<i>Reason</i>
held	The job is in a queue and InfoPrint cannot schedule it. Either the job-hold job attribute is set to true or the job is held for some other reason, such as resources not ready. The job-state-reasons job attribute provides the reason.
imposing	InfoPrint is arranging the job's pages so that they will print on the press sheets in the right order for final cutting, folding, and binding.
paused	The job was paused with the pdpause command.
pending	The job is in a queue and is waiting for InfoPrint to schedule and send it to an actual destination.
pre-processing	InfoPrint is creating the job.
printing	The job is printing on a PSF actual destination. The printing state is not supported by the AIX, BSD, Generalized Fax, email, or InfoPrint 2000 DSS. Jobs printing on AIX or BSD actual destinations, or sending on fax or email destinations, are in the processing state.

<i>Fixed Value</i>	<i>Reason</i>
processing	InfoPrint has sent the job to an actual destination. The job is processing and printing on an AIX, BSD, or InfoPrint 2000 DSS actual destination, processing and sending on a generalized fax or email destination, or processing on a PSF actual destination. Depending on the output device, this can indicate that InfoPrint has sent at least one document in the job to the output device.
retained	InfoPrint has retained the job in the server after it finished printing or sending or after it was cancelled. Either the value of the job-retention-period job attribute for the job is greater than zero, or the value of the job-retain-until job attribute for the job is a future time.
ripping	InfoPrint is converting the job to raster image patterns for printing. The ripping state is supported only by the PSF, Generalized Fax, email, and InfoPrint 2000 DSSs.
terminating	The job is terminating, either because it has finished processing or because it was aborted. The job-state-reasons job attribute provides the reason.
unknown	The server does not know the state of the job because it lost communication with the actual destination to which InfoPrint sent the job.

Default Value

No default value

Usage Guidelines

Jobs are in the job state **cancelled**, **pre-processing**, and **terminating** for only a very short time. You might never see them as values for this attribute; however, you might see them as values for the **previous-job-state** job attribute.

current-page-printing (Job Only)

Reports the page number of the currently printing or sending page.

GUI label

Page currently printing

DSS

PSF

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets and updates this value to an integer from 0 through 2147483647.

Default Value

No default value

Usage Guidelines

The differences between this attribute and **pages-completed** are:

- **current-page-printing** is the number of the page being printed or sent, while **pages-completed** is the number of pages placed in the stacker. For example, when page 12 of the first copy of a double-sided job is printing, the value of **current-page-printing** is 12 and the value of **pages-completed** is 10.
- **current-page-printing** is reset with every job copy, while **pages-completed** is cumulative in a job. For example, when page 6 of the second copy of a 10-page job is printing, the value of **current-page-printing** is 6. When the same page is stacked, the value of **pages-completed** is 16.

d-s-s-requested

See **dss-requested**.

deadline-in-jeopardy (Job Only)

Indicates whether the job is in danger of not completing before the time specified by the **job-deadline-time** attribute.

GUI label

Deadline in jeopardy

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- **true**
- **false**

Default Value

No default value

Usage Guidelines

InfoPrint sets **deadline-in-jeopardy** to **true** under these conditions:

- If the queue attribute **assign-to-destination=true**, when the value of the **estimated-completion-time** attribute is later than the value of the **job-deadline-time** attribute.

- If the queue attribute **assign-to-destination=false**, when the current time is later than the value of the **job-deadline-time** attribute. InfoPrint cannot calculate a value for the **estimated-completion-time** attribute if **assign-to-destination=false**.

delete-segment-list

Indicates whether to delete the segment list file and all associated segments after the job is complete. The default behavior deletes the segment list file and all associated segments. You can use this attribute when you want to save the segment list and all associated segments.

GUI label

Delete segment list

DSS

PSF, Email, Generalized Fax, and InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value

Usage Guidelines

- When you use the InfoPrint 2000 DSS, the segment list is always deleted, so this attribute has no effect.
- If **delete-segment-list** is **false**, the **optimize-for-multiple-copies** actual destination attribute is **true**, and the actual destination is in save pages mode, the job stays on the job queue and can be reprinted at a later time. However, when a retained job is on a printer that supports color management resources (CMRs), InfoPrint Manager issues message 0424-517 Printer color setup may have changed from when pages were saved that states color fidelity on the retained job cannot be guaranteed, processing continues, and the printed output should be verified.

descriptor (Default Job Only)

Provides a description of this default job.

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that describes this default job.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description helps job submitters to determine if this default job is the one they want to use.

destination-initial-value-job (Job Only)

Identifies the default job associated with the logical destination to which you submitted the job and used to create the job.

GUI label

Default job used

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **printer-initial-value-job**.

Allowed Values

InfoPrint sets this value to the name of the default job used.

Default Value

No default value

destination-locations-requested

Identifies a list of destination locations. InfoPrint can use a destination at any of these locations to process the job.

GUI label

Actual destination locations requested

DSS

All

Type

Resettable, multi-valued

Input Synonyms

You can use the synonym **printer-locations-requested** or **locations-requested**.

Allowed Values

You can enter a text string of up to 4095 characters, per value, that contains the actual location of each destination requested. InfoPrint will process the job on a destination at one of the locations if the validation is successful.

Default Value

No default value

Usage Guidelines

- InfoPrint validates jobs using this attribute against the logical and actual destination attribute **destination-locations**.
- InfoPrint schedules the job against the actual destination attribute **destination-locations**.
- Any individual value specified for this attribute can select more than one actual destination. For example, the output devices could all be in the same location, such as a printer room.
- The values for both the job and destination attributes are text strings that can include blanks. They must match exactly for validation to occur.

destination-models-requested

Identifies a list of destination make and model IDs. InfoPrint can use any one of these destinations to process the job.

GUI label

Actual destination models requested

DSS

All

Type

Resettable, multi-valued

Input Synonyms

You can use the synonym **printer-models-requested** or **models-requested**.

Allowed Values

You can enter a text string of up to 4095 characters, per value, that identifies the destination model.

Default Value

No default value

Usage Guidelines

- InfoPrint validates jobs using this attribute against the logical and actual destination attribute **destination-model**. Only one value must match for InfoPrint to validate the job.
- InfoPrint schedules the job against the actual destination attribute **destination-model**. Only one value must match for InfoPrint to schedule the job.
- This attribute is multi-valued whereas the destination attributes are single-valued.
- Any individual value specified for this attribute can select more than one actual destination.
- The value for this attribute and the values for the destination attributes for the BSD, PSF, email, and Generalized Fax actual destinations are text strings that can include blanks. (The values for the AIX actual destination attribute almost never contain blanks.)
- The value for this attribute and the value for the destination attribute must match exactly for validation to occur.

destination-name-requested (Job Only)

Identifies the logical destination to which you submitted this job.

GUI label

Submitted to

DSS

All

Type

Initially settable, single-valued

Input Synonyms

You can use the synonym **printer-name-requested**, **printer-requested**, or **logical-printer-requested**.

Allowed Values

You can enter a text string of up to 255 characters that contains the name of the logical destination.

Default Value

No default value

Usage Guidelines

- If you do not specify a value for this attribute, InfoPrint uses the **-p** or **-d** value on the **pdpr** command, or the **PDPRINTER** environment variable of the job submitter.

To move the job to a different logical destination, use the **pdresubmit** command.

destinations-assigned (Job Only)

Identifies the actual destination to which InfoPrint assigned the job for processing.

GUI label

Destination

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **printers-assigned**.

Allowed Values

InfoPrint sets this value to the name of the actual destination where it sent the job.

Default Value

No default value

Usage Guidelines

If the value for this attribute is blank, the job is still waiting for InfoPrint to assign it to an actual destination.

destinations-used (Job Only)

Identifies the actual destination that printed or sent this job.

GUI label

Destinations used

DSS

All

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **printers-used**.

Allowed Values

InfoPrint sets this value to the names of the actual destinations where it sent the job.

Default Value

No default value

Usage Guidelines

Normally this value only contains one actual destination name. However, if InfoPrint restarted the job on another actual destination because the first actual destination failed for some reason, this value could contain more than one actual destination name.

device-support-system-requested

See **dss-requested**.

discard-time (Job Only)

Put your short description here; used for first paragraph and abstract.

See **job-discard-time**.

dss-requested

Identifies the destination support system (DSS) requested for the job.

GUI label

Actual destination type requested

DSS

All

Type

Resettable, single-valued

Input Synonyms

You can use the synonyms **device-support-system-requested** or **d-s-s-requested**.

Allowed Values

For AIX:

<i>Fixed Value</i>	<i>Input Synonym</i>
aix	piobe
bsd	
psf	
email	
generalized-fax	
IP2000	
metacode	
sapconnect	

For Windows:

<i>Fixed Value</i>	<i>Input Synonym</i>
bsd	
psf	
IPP	
windows	passthrough

Default Value

No default value

Usage Guidelines

- InfoPrint validates jobs using this attribute against the logical and actual destination attribute **device-support-system**.
- InfoPrint schedules the job against the actual destination attribute **device-support-system**.

end-message

See [job-end-message](#).

estimated-completion-time (Job Only)

Indicates the time when InfoPrint expects the job to finish printing or sending.

GUI label

Estimated completion time

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets the value for this attribute in the local time format; USA is "HH:MM:SS mm/dd/yy".

Default Value

No default value

Usage Guidelines

- InfoPrint uses the values it calculated for the **estimated-processing-time** attribute of this job and the jobs ahead of it in the queue to estimate the job's completion time.
- InfoPrint can calculate a value for this attribute only when the queue attribute **assign-to-destination** is set to **true**.

estimated-processing-time (Job Only)

Indicates how long the job should take to process.

GUI label

Estimated processing time

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a value using [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

No default value

Usage Guidelines

- InfoPrint uses the values of the **total-job-octets** and **job-complexity** attributes to estimate the job's processing time. You can change this value.
- InfoPrint can calculate a value for this attribute only when the queue attribute **assign-to-destination** is set to **true**.

forms

Specifies a user-defined string for a particular set of printer configurations that need to be set up for this job. The printer configurations can include, but are not limited to, such things as paper/tray set up, post-processing requirements, and so forth.

GUI label

Forms

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string.

Default Value

No default value

Usage Guidelines

- The **forms** attribute is used with the **forms-ready** actual destination attribute and the **forms-available** server attribute.
- A job submitted with forms specified that are not in the forms-available list cause the specified forms to be added to the available-list automatically.
- The **forms** attribute does not affect input bin selection. It is used for job scheduling only.

formatted-job-ticket-content (Job Only)

Contains the job ticket document for the job in human-readable format.

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Non-settable, single-valued

Input Synonyms

You can use the synonym **job-ticket-content** or **ticket-content**.

Allowed Values

InfoPrint sets the value of this attribute to the contents of the formatted job ticket document.

Default Value

No default value

global-id (Job Only)

See **job-identifier**.

hold

See **job-hold**.

initial-value-job (Job Only)

Identifies the default job (in a given server) that InfoPrint uses to create this job.

DSS

All

Type

Initially settable, single-valued

Allowed Values

You can enter the name of an existing default job.

Default Value

No default value

Usage Guidelines

If you specify a value for this attribute, the job uses the attributes and values from the specified object unless you override those with attribute values supplied at the command line.

initial-value-job-identifier (Default Job Only)

Identifies this default job in the server.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *DefaultJobName* value of the **pdcreate** command argument *ServerName:DefaultName* when this default job is created.

Default Value

No default value

Usage Guidelines

The value for this attribute must be unique in a server.

intervening-jobs (Job Only)

Indicates the number of jobs in the queue before this job.

GUI label

Position in queue

DSS

All

Type

Non-settable, single-valued

Input Synonyms

You can use the synonym **position-in-queue** or **queue-position**.

Allowed Values

InfoPrint sets and updates this value to an integer from 0 through 2147483647.

Default Value

No default value

Usage Guidelines

- This attribute provides status information.
- A value of zero (0) means that the job is currently printing or sending.

job-batch

Specifies that you have marked the job you are submitting as a specific type of job. InfoPrint processes this job only on an actual destination that is ready to print or send that specified job-batch type.

GUI label

Batch

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that contains the job-batch name.

Default Value

No default value

Usage Guidelines

InfoPrint schedules jobs using this attribute against the **job-batches-ready** actual destination attribute.

job-client-id (Job Only)

Identifies the local job identifier number for the job.

GUI label

ID

DSS

All

Type

Resettable, single-valued

Allowed Values

InfoPrint sets this value by default from 1 through 100. The **PDIDTABLE** environment variable can be used to change the upper value or to disable the mapping altogether.

Default Value

No default value

job-comment

Provides information associated with this job.

GUI label

Description

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **comment**.

Allowed Values

You can enter a text string of up to 4095 characters that contains information associated with this job.

Default Value

No default value

job-complexity

Indicates the relative complexity of the job, based on the contents of the documents in the job. For example, a job with many graphics is more complex than a job that is mostly text.

GUI label

Complexity (1–10)

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter an integer from **1** to **10**.

Default Value

3

Usage Guidelines

- The default value, **3**, represents an average job. A job with complexity **1** is one-third as complex as the average job; a job with complexity **9** is three times as complex as average.
- InfoPrint uses this value and the size of the job to estimate the job processing time.
- InfoPrint uses this attribute only when the queue attribute **assign-to-destination** is set to **true**.

job-copies-completed (Job Only)

Indicates the total number of copies of the job that have finished printing or sending.

GUI label

Copies completed

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets and updates this value to an integer from 0 through 2147483647 when:

AIX Each job copy completes.

BSD Each result-set completes.

InfoPrint 2000
Each result-set completes.

PSF Each job copy completes.

Email Each result-set completes.

Generalized Fax
Each result-set completes.

Passthrough
Each result-set completes.

IPP Each result-set completes.

Metacode
Each result-set completes.

Default Value

No default value

job-deadline-time (Job Only)

Specifies the time or time and calendar date by which you want the job to complete.

GUI label

Deadline time

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a value using the local time format. The USA format is HH:MM:SS or "HH:MM:SS mm/dd/yy". You must delimit the string with quotation marks if you specify a date. If you specify a time but no date, the date defaults to today.

Default Value

No default value

job-discard-time (Job Only)

Specifies the time or time and calendar date at which InfoPrint discards the job if it has not been scheduled for printing on an actual destination..

GUI label

Discard time

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **discard-time**.

Allowed Values

You can enter a value using the local time format. The USA format is HH:MM:SS or "HH:MM:SS mm/dd/yy". You must delimit the string with quotation marks if you specify a date. If you specify a time but no date, the date defaults to today.

Default Value

No default value

job-end-message

Provides a message conveying information about output handling when the job is complete.

GUI label

End message

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **end-message**.

Allowed Values

You can enter a text string of up to 4095 characters that contains instructions to an operator, such as special output delivery instructions.

Default Value

No default value

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **end-message-supported**.
- InfoPrint sends this message if the attribute **end-message-supported** value is **true** for the actual destination to which InfoPrint submitted the job.
- The destination attribute **notify-operator** identifies the operators that are to receive the message.

job-finishing

Identifies the finishing options for this job.

GUI label

Finishing options

DSS

PSF, InfoPrint 2000

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values for PSF-supported printers, that is printers that use the PSF DSS:

- **edge-stitch**
- **edge-stitch-2**
- **edge-stitch-3**
- **edge-stitch-bottom**
- **edge-stitch-left**

- **edge-stitch-right**
- **edge-stitch-top**
- **punch-2**
- **punch-3**
- **punch-4**
- **saddle-fold**
- **saddle-stitch**
- **staple-bottom-left**
- **staple-bottom-right**
- **staple-top-left**
- **staple-top-right**

You can enter any of these fixed values for printers that use the InfoPrint 2000 DSS:

- **booklet-stitch-and-fold**
- **booklet-stitch-fold-and-trim**
- **edge-stitch-2**
- **saddle-stitch**
- **staple-bottom-left**
- **staple-top-left**

Default Value

No default value

Usage Guidelines

- **edge-stitch-2**, **edge-stitch-3**, and **edge-stitch** all staple one edge of the job. The difference is the number of staples: 2, 3, or the finisher default.
- This attribute is not valid for ASCII documents.
- The placement of staples in relation to the data depends on the image orientation and the way the paper is loaded in the printer. Letter and A4 paper are normally loaded long edge first, but are loaded short edge first when rotated. Long media sheets, like legal paper, are always loaded short edge first.
- While the PSF DSS and the IP2000 DSS support the job-finishing values listed, the way these values are implemented by the different printers can vary. Therefore, you might need to experiment. For specific details on finishing options with printers, see your printer documentation.
- For PSF DSS, **saddle-stitch** is valid only for these medium sizes, all loaded short edge first:
 - **A3**
 - **A4** (rotated)
 - **ledger**
 - **legal**
 - **letter** (rotated)
- For PSF DSS, when you specify a value for **job-finishing**, InfoPrint creates an inline form definition. Do not use the document attribute **form-definition** to specify another form definition.
- InfoPrint validates and schedules jobs using this attribute against the **job-finishings-supported** actual destination attribute.

- The **job-finishing** attribute is not applicable to UP³I devices. For information about UP³I devices, see the *InfoPrint Page Printer Formatting Aid: User's Guide*.

job-hold

Indicates whether InfoPrint can schedule the job for printing or transmission.

GUI label

Hold

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **hold**.

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

Default job	No default value
Job	false

Usage Guidelines

- If **job-hold** is **true**, the **job-state** changes to **held** and InfoPrint sets the **job-state-reasons** to **job-hold-set**.
- A held job remains in the queue until:
 - **job-hold** is set to **false** and the job is printed or sent.
 - The time set in the **job-discard-time** attribute is reached and the job is discarded.
- When a job with **job-rip-action=rip-and-print-ignore-ready** is placed in the **held** state after RIPping because a required resource is not ready, the value of **job-hold** remains **false**. The job is automatically released when all required resources become ready.

job-identifier (Job Only)

Identifies the global job identifier. The global job ID uniquely identifies the job in the server.

GUI label

Global ID

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **global-id**.

Allowed Values

InfoPrint sets this value.

Default Value

No default value

job-log (Job Only)

Contains messages that InfoPrint issues as this job is processed.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets the value of this attribute to the messages issued as the job is processed.

Default Value

No default value

Usage Guidelines

InfoPrint creates this attribute when the value of the **delivery-method** component of the **notification-profile** attribute is **job-log**.

job-media-sheet-count (Job Only)

Identifies the estimated total number of sheets used to print the job.

GUI label

Number of media sheets

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **media-sheet-count**.

Allowed Values

You can enter an integer from 1 through 2147483647.

Default Value

No default value

job-message-from-administrator (Job Only)

Describes the reasons that you are changing or have changed the job.

GUI label

Message from administrator

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **message-from-administrator**.

Allowed Values

The administrator can enter a text string up to 4095 characters long that provides information concerning why a given action was taken. The administrator uses the **-m** flag or the command attribute **message** of certain InfoPrint commands. See "Usage Guidelines" for how you can set the value.

Default Value

No default value

Usage Guidelines

Set this attribute by specifying a value with the **-m** flag or the **message** command attribute of these commands:

- **pdmod**
- **pdpause**
- **pdpromote**
- **pdresume**
- **pdrm**
- **pdset**

job-message-to-operator

Provides a message that InfoPrint can send to an operator when it adds the job to the queue.

GUI label

Message to operator

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **message-to-operator**.

Allowed Values

You can enter a text string of up to 4095 characters that contains information about job processing requirements, such as some type of special handling.

Default Value

No default value

Usage Guidelines

The queue attribute **notify-operator** identifies the operator who receives the message.

job-name

Provides a human-readable job identification.

GUI label

Name

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **name**.

Allowed Values

You can enter a text string of up to 255 characters that contains the job name.

Default Value

Default job

No default value

Job The file name of the first document in the job

Usage Guidelines

For PSF, this identification can print on the start sheet in the **JOB NAME** field.

job-originator (Job Only)

Identifies the person who submitted the job or the program that initiated the job.

DSS

All

Type

Initially settable, single-valued

Input Synonym

You can use the synonym **originator**.

Allowed Values

You can enter a text string up to 255 characters long that contains the name, login ID, login ID and node of the person submitting the job, the name of the program initiating the job, or the fax-number of the sender of a fax. The InfoPrint Manager SAP feature must be installed to send fax requests into SAP.

Default Value

username@node of the person submitting the job.

Usage Guidelines

- You can use this attribute to identify yourself by name or to identify the program that initiated the job.
- When you are sending a fax request into SAP, you must specify **job-originator** with the fax-number of the sender of a fax. You must also specify the SAP receiver's fax number as the **delivery-address** and **sapconnect-fax** as the delivery-method on the **results-profile** attribute for the job. The InfoPrint Manager SAP feature must be installed to send fax requests into SAP.

job-owner (Job Only)

Identifies the person responsible for the job by name or login ID.

GUI label

Sent by

DSS

All

Type

Initially settable, single-valued

Input Synonym

You can use the synonym **owner**.

Allowed Values

You can enter a text string of up to 255 characters. Normally the string contains the *username@node* of the person that is responsible for this job.

Default Value

The value of the job attribute **job-originator**.

Usage Guidelines

- You can use this attribute to specify a person other than yourself who is responsible for the job.
- For BSD, InfoPrint maps this attribute value to the **qprt -D** option.
- For PSF, this identification can print on the start sheet in the **USERID** field.

job-page-count (Job Only)

Identifies the estimated total number of pages in the job.

GUI label

Number of pages

DSS

All

Type

Resettable, single-valued

Allowed Values

An integer from 1 through 2147483647.

Default Value

The total of the values of the **page-count** attribute for all documents multiplied times the value in the **copy-count** attribute (and the **job-copies** component in the **results-profile**) for all the documents in the job.

Usage Guidelines

- InfoPrint calculates the value for **job-page-count** as follows:
 1. Multiplies the value of each printable document's **page-count** attribute times the value of its **copy-count**.
 2. InfoPrint then multiplies the value from step 1 times the **job-copies** component of the **results-profile** job attribute.
 3. InfoPrint then totals the values for all printable documents and inserts the result in the **job-page-count** attribute.
- If you choose to specify a value for the **job-page-count** attribute, the value should closely represent the total number of pages expected for the complete job.
- The **job-page-count** value is recalculated by the Infoprint Server if any transform object modifies (and informs InfoPrint Manager) any document's page count when processing a job.
- InfoPrint Manager can modify the page count of a document with the page count function that is enabled with the **count-job-pages** server attribute.
- If the **count-job-pages** server attribute is set, the **job-page-count** value is recalculated when all documents in the job have been ripped and held and requested copies have been made.

job-print-after (Job Only)

Specifies the time or time and calendar date after which InfoPrint can schedule the job for printing or transmission.

GUI label

Print after

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **print-after**.

Allowed Values

You can enter a value using the local time format. The USA format is HH:MM:SS or "HH:MM:SS mm/dd/yy". You must delimit the string with quotation marks if you specify a date. If you specify a time but no date, the date defaults to today.

Default Value

No default value

Usage Guidelines

- If you submit the job before the specified time, InfoPrint sets the **job-state** to **held** and the **job-state-reasons** attribute value for the job is **job-print-after-specified**.
- If you submit the job after the specified time, the job is printed or sent as soon as possible.

job-priority

Specifies a number representing the scheduling priority for the job. Actual destinations that employ a priority-based scheduler use this attribute. A larger value specifies a higher priority.

GUI label

Priority (1–100)

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 to 100.

Default Value

Default job

No default value

Job 50

Usage Guidelines

- A job submitter cannot set this value higher than 50 unless the job submitter is an administrator. If the job submitter specifies a value greater than 50, InfoPrint sets the value to 50.
- An administrator can set the value to any valid value.

job-retain-until (Job Only)

Specifies the time or time and calendar date until which InfoPrint retains the completed job before the server discards it. The job has to be in the retained state before **job-retain-until** starts. The job can be a job that has completed or a job that has been canceled.

GUI label

Retain until

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a value using the local time format. The USA format is HH:MM:SS or "HH:MM:SS mm/dd/yy". You must delimit the string with quotation marks if you specify a date. If you specify a time but no date, the date defaults to today.

Default Value

No default value

Usage Guidelines

- You can only specify one retention period attribute for each job. If you set a different retention period attribute, that attribute takes effect, and this one is cleared. The retention period attributes are **job-retain-until (Job only)**, **job-retention-period**, and **retain-forever**.
- You can specify a value for either **job-retain-until** or **job-retention-period**, but not both.

job-retention-period

Specifies the period of time from when the job enters the retained state that InfoPrint retains the job. If the job is still in the retained state when that period of time has passed, the Infoprint Server discards the job.

Note: The **retained-time** Job attribute can be queried to see the time a job entered the retained state.

GUI label

Retain for

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **retention-period**.

Allowed Values

You can enter a value using [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

No default value

Usage Guidelines

- You can specify a value for either **job-retain-until** or **job-retention-period**, but not both.
- The retention period starts when the job enters the **retained** state.
- You can only specify one retention period attribute for each job. If you set a different retention period attribute, that attribute takes effect, and this one is cleared. The retention period attributes are **job-retain-until (Job only)**, **job-retention-period**, and **retain-forever**.

job-rip-action

Indicates that InfoPrint should convert the job to raster image patterns and whether to hold the RIPped job, print or send it, or neither.

GUI label

Rip option

DSS

PSF, Email, Generalized Fax, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
rip-and-hold , rip-and-hold-ignore-ready	InfoPrint RIPs the job and returns it to the scheduler in the held state. The value of the job-state-reasons attribute is rip-and-hold-completed .
rip-and-print	If all required resources are ready on an actual destination, InfoPrint RIPs and prints the job. Otherwise, InfoPrint returns the job to the scheduler in the held state, without RIPping it. The value of the job-state-reasons attribute is required-resource-not-ready .

<i>Fixed Value</i>	<i>Explanation</i>
rip-and-print-ignore-ready	If all required resources are ready, InfoPrint RIPs and prints the job. Otherwise, InfoPrint RIPs the job and returns it to the scheduler in the held state. The value of the job-state-reasons attribute is rip-completed . When the required resources become ready, InfoPrint automatically releases the job to print.
rip-only, rip-only-ignore-ready	InfoPrint RIPs the job and discards or retains it according to the values of the job-retain-until and job-retention-period attributes. For a retained job, the value of the job-state-reasons attribute is completed , completed successfully , or completed with errors .

Default Value

No default value

Usage Guidelines

- Use the **rip-only** and **rip-only-ignore-ready** values to test for RIPping errors.
- The **rip-and-hold** and **rip-and-hold-ignore-ready** values override a value of **false** for the server **save-rip-files** attribute.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **job-rip-actions-supported**.

Note: You can set the **count-job-pages** server attribute to enable the job page count function. When enabled, the server can calculate job page count for jobs with **rip-and-hold** or **rip-and-hold-ignore-ready** values of the **job-rip-actions** attribute.

job-ripped-by-server

Indicates whether InfoPrint should convert the job to MOD:CA-P and send it as email or to be printed with the InfoPrint 2000 DSS. If this attribute is **true**, the server converts the job into MOD:CA-P. If this attribute is **false**, the server determines if the job can be printed directly by the InfoPrint 2000 DSS or sent directly as email without converting to MOD:CA-P. When a job cannot be handled directly without conversion, the job is requeued on the spooler.

GUI label

Override RIP at destination

DSS

Email, InfoPrint 2000

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes

<i>Fixed Value</i>	<i>Input Synonym</i>
false	no

Default Value

true

Usage Guidelines

- When a job requires special processing of its input files, the server transforms the job into MOD:CA-P regardless of the **job-ripped-by-server** job attribute or the document formats listed in the **document-formats-ripped-at-destination** actual destination attribute.
- This document formats cannot be converted to MOD:CA-P:
 - ASCII
 - KGL

InfoPrint sends these document formats in passthru mode. For documents to print successfully in passthru mode, the **job-finishing** job attribute and these document attributes must not be specified:

- **account-text**
- **base-printer**
- **carriage-control-type**
- **chars**
- **convert-to-ebcdic**
- **default-character-mapping**
- **default-medium**
- **default-font-fidelity-action**
- **form-definition**
- **halftone**
- **image-fit**
- **image-length**
- **image-width**
- **input-exit**
- **new-line-option**
- **number-up**
- **other-transform-options**
- **output-bin**
- **output-format**
- **overlay**
- **page-definition**
- **page-select**
- **plex**
- **printer-pass-through**
- **resource-context**
- **resource-context-font**
- **resource-context-form-definition**
- **resource-context-page-definition**

- resource-context-page-segment
- resource-context-overlay
- resource-context-user
- shift-out-shift-in
- sides
- start-on-new-sheet
- subject-text
- 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

Note: If any of these attributes are specified, InfoPrint converts the job to MOD:CA-P.

- When the **job-finishing** job attribute and these document attributes are specified for an email with color, InfoPrint converts the job into MOD:CA-P and presents the email in black and white:
 - account-text
 - address1-text
 - address2-text
 - address3-text
 - address4-text
 - carriage-control-type
 - chars
 - convert-to-ebcdic
 - default-character-mapping
 - font-fidelity-action
 - font-resolution
 - form-definition
 - image-fit
 - image-length
 - image-width
 - input-exit
 - new-line-option
 - number-up
 - other-transform-options
 - output-bin
 - output-format
 - overlay
 - page-definition
 - page-select
 - plex
 - resource-context

- **resource-context-font**
- **resource-context-form-definition**
- **resource-context-page-definition**
- **resource-context-page-segment**
- **resource-context-overlay**
- **resource-context-user**
- **shared-formdef**
- **shift-out-shift-in**
- **sides**
- **table-reference-characters**
- **transform-message-file-name**
- **transform-output-file-name**
- **x-image-shift**
- **y-image-shift**

Note: If any of these attributes are specified, InfoPrint converts the job to MOD:CA-P.

In addition to the listed attributes, any of these job characteristics also require that InfoPrint converts the job into MOD:CA-P:

- Job contains more than one printable document.
- Job contains an insert sheet.
- Job contains a file-reference document.
- Job contains a document whose document-format is MOD:CA-P.
- Job requests **job-rip-action=rip-and-hold**, **rip-only**, **rip-only-ignore-ready**, or **rip-and-hold-ignore-ready**.
- Job requests more than one copy with the **copy-count** attribute.
- Job contains a resource document.
- Job contains a document-definition-document.

job-scheduling

Indicates how the associated job is to be scheduled.

GUI label

Job scheduling

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
normal	Specifies normal InfoPrint scheduling methods.
retain-immediately	Specifies that the job goes into retained state immediately after being received by the InfoPrint server, which means that the job is not put on the queue or scheduled. The job is processed according to the values of its retention period attributes.

Note: When you specify **retain-immediately** with the **job-scheduling** job/default job attribute, make sure that a retention-period has been set for the job with either the **job-retain-until** job attribute, the **job-retention-period** job/default job attribute, or the **retain-forever** job/default job attribute.

Default Value

No default value

Usage Guidelines

If **retain-immediately** is specified with no other retention attributes, the job defaults to **retain-forever** as **true** to prevent accidental loss of a retained job.

job-size (Job Only)

See **total-job-octets**.

job-start-message

Provides a message that InfoPrint can send to an operator when the job starts printing or sending. This message can alert the operator to something special about the job, for example, that the job contains confidential information.

GUI label

Start message

DSS

All

Type

Resettable, single-valued

Input Synonym

You can use the synonym **start-message**.

Allowed Values

You can enter a text string of up to 4095 characters that contains information about the job such as:

"This job is very important; call me if there is a problem."

Default Value

No default value

Usage Guidelines

- InfoPrint validates and schedules jobs using this attribute against the destination attribute **start-message-supported**.
- InfoPrint sends a message if the actual destination attribute **start-message-supported** value is **true** for the actual destination to which InfoPrint submitted the job.
- The destination attribute **notify-operator** contains the identity of the operators that are to receive the message.
- Sending the start message does not stop the job; normally the job is printed or sent without operator intervention.
- Sending a start message is particularly useful for AIX printer devices that have manual forms feed capabilities. You can send a message alerting the operator to load a special type of paper before starting the job.
- Use this attribute with the **job-start-wait** attribute for jobs that require operator intervention, for example, loading special forms in the printer device. If the values of the **job-start-message** and **job-start-wait** are true, when the job is about to be printed or sent, InfoPrint pauses the actual destination and the person specified by the actual destination **notify-operator** attribute receives the message specified by the **job-start-message** attribute. When the operator resumes the actual destination, the job is printed or sent.

job-start-wait

Pauses the actual destination just before the job is printed or sent.

GUI label

Wait to start job

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes

<i>Fixed Value</i>	<i>Input Synonym</i>
false	no

Default Value

Default job

No default value

Job false

Usage Guidelines

- Use this attribute with the **job-start-message** attribute for jobs that require operator intervention, for example, loading special forms in the printer device. If the values of the **job-start-wait** and **job-start-message** are true, when the job is about to be printed or sent, InfoPrint pauses the actual destination and the person specified by the actual destination **notify-operator** attribute receives the message specified by the **job-start-message** attribute. When the operator resumes the actual destination, the job is printed or sent.
- InfoPrint validates and schedules jobs using this attribute against the destination attribute **job-start-wait-supported**.

job-state (Job Only)

See **current-job-state**.

job-state-reasons (Job Only)

Identifies the reasons that a job is in the **held**, **terminating**, or **retained** state. If this attribute value is blank, the job is not in one of these states.

GUI label

Reasons

DSS

All

Type

Non-settable, multi-valued

Input Synonyms

You can use the synonym **state-reasons** or **reasons**.

Allowed Values

InfoPrint sets this value to any of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
aborted-by-system	The server aborted the job.
cancelled-by-operator	An operator or system administrator cancelled the job.

<i>Fixed Value</i>	<i>Explanation</i>
cancelled-by-user	The person who submitted the job cancelled the job.
completed	The job completed without any errors or warnings that InfoPrint could detect. This does not guarantee that there were no errors of any kind.
completed-successfully	The job completed without any errors or warnings.
completed-with-errors	The job completed with errors. Based on the dss-job-message-disposition actual destination attribute, the messages associated with the errors either print at the end of the job or in a message log. See iprrl_pptdjmd.dita#iprrl_pptdjmd.
deadline-in-jeopardy	The value of the estimated-completion-time attribute for the job is later than the time specified by the job-deadline-time attribute; or the time specified by the job-deadline-time attribute is past.
job-hold-set	The job is in a queue and the job-hold job attribute of the job has a true value.
job-print-after-specified	The job is in a queue and the time specified by the job-print-after job attribute has not yet occurred.
required-resource-not-ready	The job is in a queue but InfoPrint cannot schedule it because one or more of the resources required by the job (such as media, fonts, and so on) are not ready on any of the actual destinations that can accept the job. The job's required-resource-not-ready attribute identifies the resources that need to be made ready.
required-resource-not-supported	The job is in a queue but InfoPrint cannot schedule it because none of the actual destinations that can accept the job support one or more of the resources required by the job (such as media, fonts, and so on). The job's required-resource-not-supported attribute identifies the resources that are not supported.
retained-immediately	The job is not put on a queue or scheduled when it is received by the InfoPrint server. The job is immediately processed according to the values of its retention period attributes.
rip-and-hold-completed	The RIP has successfully converted the job. The job has not been scheduled because the value of the job-rip-action attribute is rip-and-hold or is rip-and-hold-ignore-ready .
rip-completed	A job with job-rip-action=rip-and-print-ignore-ready has been RIPped, but InfoPrint cannot schedule it because one or more of the resources required by the job are not ready on any of the actual destinations that can accept the job. Jobs held for this reason are released automatically when the required resources become ready.
rip-failed	The RIP failed to convert the job. Note: You will see this reason only if the job is retained or if the value of the requeue-failed-jobs queue attribute is true . When neither of these conditions is true, jobs that fail to rip are discarded.

Default Value

No default value

job-submission-complete (Job Only)

Indicates whether the server has received all documents of the job.

GUI label

Submission complete

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- true
- false

Default Value

No default value

job-ticket-content

See `formatted-job-ticket-content`.

last-accessor (Job Only)

See `name-of-last-accessor`.

last-modifier (Job Only)

See `name-of-last-accessor`.

list-of-managers (Default Job Only)

Identifies the persons responsible for the maintenance of this default job.

DSS

All

Type

Resettable, multi-valued

Input Synonym

You can use the synonym `managers`.

Allowed Values

You can enter a text string up to 255 characters long, per value, that contains the name or user ID of the person responsible for this default job.

Default Value

No default value

Usage Guidelines

This attribute is useful if a user needs to contact someone to report a problem or to request a change.

locations-requested

See `destination-locations-requested`.

logical-destinations-ready (Default Job Only)

Lists the enabled logical destinations that reference this default job.

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets or deletes a text string containing the global ID of any logical destination that references this default job when the logical destination is enabled or disabled.

Input Synonym

You can use the synonym `logical-printers-ready`.

Default Value

No default value

Usage Guidelines

- InfoPrint adds a value when a logical destination that references this default job through its `destination-initial-value-job` attribute is enabled.
- InfoPrint removes a value when a logical destination that references this default job is disabled.
- You cannot delete this default job until InfoPrint has removed all logical destinations from this list.

logical-printer-requested

See `destination-name-requested`.

logical-printers-ready (Default Job Only)

See `logical-destinations-ready`.

managers (Default Job Only)

See `list-of-managers`.

media-sheet-count (Job Only)

See `job-media-sheet-count`.

media-sheets-completed (Job Only)

Reports the number of sheets that have been used to print this job.

GUI label

Media sheets completed

DSS

PSF, Email, Generalized Fax, InfoPrint 2000, Passthrough

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets and updates this value to an integer from 0 through 2147483647 at the completion of each result-set.

Default Value

No default value

Usage Guidelines

How this value relates to the value of `pages-completed` depends on the values of the `output-format`, `number-up`, and `sides` document attributes.

- For a single-sided, 1-up job, `pages-completed` is equal to `media-sheets-completed`.
- For a single-sided, slit-and-merge (2-up) job, `pages-completed` is twice as large as `media-sheets-completed`.
- For a double-sided, 3-up job, `pages-completed` is six times as large as `media-sheets-completed`.

message (Default Job Only)

Provides a message associated with the default job.

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that provides information about this object.

Default Value

No default value

message-from-administrator (Job Only)

See `job-message-from-administrator`.

message-to-operator

See `job-message-to-operator`.

models-requested

See `destination-models-requested`.

modification-time (Job Only)

Identifies the time when the last modification to this job occurred.

GUI label

Last modified

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value in the local time format; for example, "HH:MM:SS mm/dd/yy" in the USA.

Default Value

No default value

name

See `job-name`.

name-of-last-accessor (Job Only)

Identifies the person or program that submitted the job, or most recently modified the job.

GUI label

Last modified by

DSS

All

Type

Non-settable, single-valued

Input Synonyms

You can use the synonym **last-accessor** or **last-modifier**.

Allowed Values

InfoPrint sets this value to the login ID of the person or the name of the program that submitted or most recently modified the job.

Default Value

The login ID of the person or the name of the program that submitted or most recently modified the job.

new-job-identifier (Job Only)

Identifies the global job identifier for a job resubmitted to a logical destination on a different server than where you first submitted the job.

GUI label

New ID

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the correct values for *ServerName:JobIdentifier*

Default Value

No default value

Usage Guidelines

If you resubmit the job to a logical destination on the same server, the job identifier remains the same.

notification-profile

Designates the people that InfoPrint notifies when specified events relating to this job occur and how InfoPrint notifies the people.

GUI label

Notification profile

DSS

All

Type

Resettable, multi-valued, complex

Syntax

```
-x "notification-profile={event-identifiers=event ...  
  delivery-address=name@node delivery-method=value  
  event-comment='some text' locale=locale}"
```

For example,

```
-x "notification-profile={event-identifiers=class-state-changed  
  job-completed delivery-address=joe@newhope delivery-method=message  
  locale=En_US.IBM-850}"
```

You can omit any of these components.

Components

- **event-identifiers**

Specifies the events for which the addressee receives notification that something has taken place.

- *GUI label*

Events

- *Type*

Multi-valued

- *Allowed Values*

The values can be any of the job events or classes of job events listed for the server. See the **events-supported** attribute for the server for more information.

- *Default Value*

- For default jobs, this component has no default values.

- For jobs, the default values are **document-aborted-by-destination**, **document-aborted-by-server**, **document-cancelled-at-destination**, **job-aborted-by-server**, **job-cancelled-by-operator**, **job-cannot-be-scheduled**, **job-completed**, **past-discard-time**, **destination-needs-attention**, **destination-needs-operator**, **destinations-not-ready-for-job**

- **delivery-address**

Specifies the address of the person that receives the event messages or the directory and file name where InfoPrint sends the message.

- *GUI label*

Address

- *Type*

Single-valued

- *Allowed Values*

You can enter a text string that contains the name and node of the person that receives the information or the path to the file.

- *Default Value*

- For default jobs, this component has no default value.

- For jobs, the default value is the login ID of the person who submitted the job.

- *Usage Guidelines*

You must specify a value for **delivery-address** if you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for the **delivery-method** component.

- **delivery-method**

Specifies how the user or file receives event messages.

- *GUI label*

Method

- *Type*

Single-valued

- *Allowed Values*

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
--------------------	----------------------

electronic-mail	e-mail, email
------------------------	----------------------

file

file-add-to

job-log

message

sapcb

sapconnect

exit

none

wireless

- *Default Value*

message

- *Usage Guidelines*

- If you specify a value of **file**, **file-add-to**, **exit**, or **wireless**, you must specify a value for the **delivery-address** component.

- If you specify a value of **job-log**, you cannot specify a value for the **delivery-address** component.

- The **sapcb** notification method causes the SAP callback daemon to return messages about job events to the SAP system. The SAP print command sets this value; you should never have to specify it.
- The **sapconnect** notification method causes the **sapconnd** daemon to return messages about job events to the SAP system. The **sapconnd** sets this value; you should never have to specify it.
- **event-comment**
Provides information that InfoPrint appends to the event message.
 - *GUI label*
Comment
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a text string of up to 4095 characters that supplies additional information.
 - *Default Value*
No default value
- **locale**
 - *Type*
Single-valued
 - *Allowed Values*
You can enter the name of any locale for which the InfoPrint messages in the corresponding language are installed.
 - *Default Value*
 - For default jobs, this component has no default value.
 - For jobs, the default value is the locale of the user who submitted the job.

Usage Guidelines

A default job can have a notification profile that only has one or two components set. When you request this default job for a job, InfoPrint fills the remaining components with default values for that job.

number-of-documents (Job Only)

Identifies the number of documents in the job, including resource documents such as fonts.

GUI label

Number of documents in job

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to an integer from 1 through 2147483647.

Default Value

No default value

object-class

Identifies the object class to which this object belongs.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **job** for a job or to **initial-value-job** for a default job.

Default Value

Job	job
Default	initial-value-job

octets-completed (Job Only)

Reports the number of octets (bytes) in this job that have been printed or sent.

GUI label

KBytes completed

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets and updates this value to an integer from 0 to 9223372036854775800 when:

AIX	You query the job after each document copy completes.
BSD	Each result-set completes.
PSF	Each result-set completes.

Email Each result-set completes.

Generalized Fax
Each result-set completes.

Passthrough
Each result-set completes.

IPP Each result-set completes.

Metacode
Each result-set completes.

Default Value

No default value

optimize-for-multiple-copies

Used with the **optimize-for-multiple-copies** actual destination attribute to indicate whether the destination should save pages to print multiple copies of the job faster.

GUI label

Optimize for copies

DSS

PSF

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value

Usage Guidelines

- Do not use this attribute for any MO:DCA file that the **Include Saved Page** structured field is specified.
- Do not use this attribute for any document that you created using the **output-format** attribute.
- This attribute is used in combination with the **optimize-for-multiple-copies** actual destination attribute:

<i>Job Attribute</i>	<i>Destination Attribute</i>	<i>Results</i>
true	true	Pages are saved

<i>Job Attribute</i>	<i>Destination Attribute</i>	<i>Results</i>
true	false	Pages are not saved
false	true	Pages are not saved
false	false	Pages are not saved
No value	true	Pages are saved
No value	false	Pages are not saved

- If the actual destination cannot save pages, the job is printed and this attribute is ignored.
- When **optimize-for-multiple-copies** is set to **true** or **yes**, the job does not print until all the pages in the job are loaded on the printer.

originator (Job Only)

See **job-originator**.

owner (Job Only)

See **job-owner**.

pages-completed (Job Only)

Reports the number of pages in this job that have been printed, and if you are using the PSF DSS, stacked.

GUI label

Pages completed

DSS

AIX, PSF, InfoPrint 2000, Email, Generalized Fax, IPP, Passthrough with IBM TCP/IP Port Monitor

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets and updates this value to an integer from 0 through 2147483647 when:

AIX You query the job or after each document copy completes.

PSF The number of pages specified by the **ack-interval** actual destination attribute have printed at the completion of each result-set.

IPP and Passthrough with TCP/IP Port Monitor

As defined by the **destination-poll-interval** actual destination attribute, which defaults to 2 seconds.

Default Value

No default value

Usage Guidelines

PSF DSS

The differences between this attribute and **current-page-printing** are:

- **current-page-printing** is the number of the page being printed or sent, while **pages-completed** is the number of pages placed in the stacker. For example, when page 12 of the first copy of a double-sided job is printing, the value of **current-page-printing** is 12 and the value of **pages-completed** is 10.
- **current-page-printing** is reset with every job copy, while **pages-completed** is cumulative in a job. For example, when page 6 of the second copy of a 10-page job is printing, the value of **current-page-printing** is 6. When the same page is stacked, the value of **pages-completed** is 16.

Note: Stacking is applicable only with the PSF DSS.

AIX DSS

The AIX DSS determines **pages-completed** in this order:

1. If the page count presented by the backend is not zero, InfoPrint uses that page count.
2. If you specified a page count with the **page-count** document attribute, InfoPrint uses that page count.
3. When InfoPrint can determine a page count from the PostScript or PCL input, InfoPrint uses that page count.

Email and Generalized Fax DSSs

InfoPrint uses the number of pages completed when the email or fax is successful.

Note: InfoPrint does not count unsuccessful emails or faxes.

InfoPrint 2000 DSS

InfoPrint uses the number of pages in the job when it has been spooled to the InfoPrint 2000 DSS printer.

physical-printers-requested

See **actual-destinations-requested**.

position-in-queue (Job Only)

See **intervening-jobs**.

previous-job-state (Job Only)

Identifies the state of the job before the last job-state change.

GUI label

Previous state

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **previous-state**.

Allowed Values

InfoPrint sets and updates this value to one of these fixed values:

<i>Fixed Value</i>	<i>Reason</i>
cancelled	The job submitter or an operator cancelled the job. The job-state-reasons job attribute provides the reason.
held	The job is in a queue and InfoPrint cannot schedule it. Either the job-hold job attribute is set to true or the job is held for some other reason, such as resources not ready. The job-state-reasons job attribute provides the reason.
imposing	InfoPrint is arranging the job's pages so that they will print on the press sheets in the right order for final cutting, folding, and binding.
paused	The job was paused with the pdpause command.
pending	The job is in a queue and is waiting for InfoPrint to schedule and send it to an actual destination.
pre-processing	InfoPrint is creating the job.
printing	The job is printing on a PSF actual destination. The printing state is not supported by the AIX, BSD, Generalized Fax, email, or InfoPrint 2000 DSS. Jobs printing on AIX or BSD actual destinations, or sending on fax or email destinations, are in the processing state.
processing	InfoPrint has sent the job to an actual destination. The job is processing and printing on an AIX, BSD, Generalized Fax, or InfoPrint 2000 DSS actual destination, processing and sending on a fax or email destination, or processing on a PSF actual destination. Depending on the output device, this can indicate that InfoPrint has sent at least one document in the job to the output device.
retained	InfoPrint has retained the job in the server after it finished printing or sending or after it was cancelled. Either the value of the job-retention-period job attribute for the job is greater than zero, or the value of the job-retain-until job attribute for the job is a future time.
ripping	InfoPrint is converting the job to raster image patterns for printing. The ripping state is supported only by the PSF, Generalized Fax, email, and InfoPrint 2000 DSS.
terminating	The job is terminating, either because it has finished processing or because it was aborted. The job-state-reasons job attribute provides the reason.
unknown	The server does not know the state of the job because it lost communication with the actual destination to which InfoPrint sent the job.

Default Value

No default value

previous-state (Job Only)

See `previous-job-state`.

print-after (Job Only)

See `job-print-after`.

printer-initial-value-job (Job Only)

See `destination-initial-value-job`.

printer-locations-requested

See `destination-locations-requested`.

printer-models-requested

See `destination-models-requested`.

printer-name-requested

See `destination-name-requested`.

printer-requested

See `destination-name-requested`.

printers-assigned (Job Only)

See `destinations-assigned`.

printers-used (Job Only)

See `destinations-used`.

processing-time (Job Only)

Reports the amount of time that the job has been printing or sending on the output device. If processing has completed, this value is the total amount of time needed to process the job.

GUI label

Processing time

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets and updates this value using [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

No default value

Usage Guidelines

InfoPrint updates this attribute when a user queries the job with the **pdl**s command. InfoPrint calculates the value by comparing the value of the **started-printing-time** job-attribute value with the current time.

promotion-time

Specifies the time the job was last promoted.

GUI label

Promotion time

DSS

Not applicable

Type

Non-settable, single-value

Allowed Values

InfoPrint sets this value in the local time format; for example, HH:MM:SS mm/dd/yy in the USA.

Default Value

No default value

queue-assigned (Job Only)

Identifies the queue to which InfoPrint assigned the job.

GUI label

Queue

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the name of the queue assigned.

Default Value

No default value

Usage Guidelines

If this attribute is blank, the job is currently in a queue (it can be in the **retained** state).

queue-position (Job Only)

See **intervening-jobs**.

reasons (Job Only)

See **job-state-reasons**.

record-count

Specifies how many records that this document contains. This can be set by the job submitter, such as MVS Download, or whoever issues the **pdpr** command. This attribute is not used for accounting purposes.

GUI label

Record count

DSS

All

Type

Resettable

Allowed Values

An integer from 0 to 9223372036854775800.

Default Value

No default value

Usage Guidelines

The **record-count** attribute does not affect any job processing, but it can be displayed in the InfoPrint Manager Administration or Operation GUI, so that the operator can use it to schedule jobs.

required-resources-not-ready (Job Only)

Lists attribute values that this job requires, but that are not ready on the actual destination to which this job is assigned, or if the job is not assigned, on the most suitable actual destination.

GUI label

Resources not ready

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this attribute to the names of the resources that are not ready.

Default Value

No default value

Usage Guidelines

- When the value of the actual destination attribute **force-destination-setup** is **true**, InfoPrint can assign a job to an actual destination even if the required resources are not ready. When the job is about to be printed or sent, InfoPrint disables the actual destination and sends a message to the operator to make the destination ready. When the operator enables the destination, the job is processed.
- When the value of the actual destination attribute **force-destination-setup** is **false** for all suitable actual destinations, InfoPrint holds jobs that require resources that are not ready and sets **required-resources-not-ready** to a list of those resources.

required-resources-not-supported (Job Only)

Lists attribute values that this job requires, but that are not supported by the actual destination to which this job is assigned, or if the job is not assigned, by the most suitable actual destination.

GUI label

Resources not supported

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this attribute to the names of the unsupported resources.

Default Value

No default value

Usage Guidelines

- Jobs that require unsupported attribute values can be found in the queue under either of these conditions:
 - The value of the server attribute **accept-unsupported-jobs** is **true**.
 - Job, document, or actual destination attributes change after the job has been accepted.
- When the value of the actual destination attribute **force-destination-setup** is **true**, InfoPrint can assign a job to an actual destination even if the required resources are not supported. When the job is about to be printed or sent, InfoPrint disables the actual destination and sends a message to the operator to make the destination ready. When the operator enables the destination, the job is printed or sent.
- When the value of the actual destination attribute **force-destination-setup** is **false** for all suitable destinations, InfoPrint holds jobs that require resources that are not supported and sets **required-resources-not-ready** to a list of those resources.

results-profile

Specifies the delivery method for the output, and designates who receives output and the number of copies for the recipient.

DSS

All

Type

AIX, BSD, PSE, IPP, Passthrough

Resettable, multi-valued, complex

InfoPrint 2000

Resettable, single-valued, complex

sapconnect

Resettable, single-valued, complex

Syntax

```
-x "results-profile=name@node:method:number:'some text':bin"
```

For example:

```
-x "results-profile=nr6445@bld25:pickup:2:'Please read'"
```

Components

- **delivery-address**

Specifies the address of the person who receives the job output or the SAP receiver's fax number.

- *Type*

Single-valued

- *Allowed Values*

You can enter a text string that contains the address.

AIX Prints the first 42 characters of the address.

PSF Prints the first 8 characters of the address.

- *Default Value*

The address of the person who submitted the job.

- **delivery-method**

- *Type*

Single-valued

- *Allowed Values*

You can enter one of these fixed values:

Value	DSS
sapconnect-fax	SAPconnect
pickup	All other DSSs

- *Default Value*

pickup

- **job-copies**

- *Type*

Single-valued

- *Allowed Values*

You can enter an integer identifying the number of copies. A value of **0** is an error.

- *Default Value*

1

- **results-set-comment**

Supplies a text string that describes the results-set value. This information can print on start sheets.

- *Type*

Single-valued

- *Allowed Values*

You can enter a text string of up to 4095 characters that provides information such as "Please staple this document" for the operator, or information such as "Please read before meeting tomorrow" for the person who receives the document.

– *Default Value*

No default value

- **output-bin**

The server does not support this component.

Usage Guidelines

- The only component that the BSD DSS uses from this complex attribute is the *job-copies* component.
- When you are sending a fax request into SAP, you must specify **job-originator** with the fax-number of the sender of a fax. You must also specify the SAP receiver's fax number as the **delivery-address** and **sapconnect-fax** as the delivery-method on the **results-profile** attribute for the job. The InfoPrint Manager SAP feature must be installed to send fax requests into SAP.
- InfoPrint checks the information specified with the **results-profile** attribute for the job against the **job-result-set-delivery-methods-supported** actual destination attribute.

retained-time (Job Only)

Identifies the time that the job entered the retained state.

GUI label

Became retained

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets the value for this attribute in the local time format; USA is "HH:MM:SS mm/dd/yy".

Default Value

No default value

Usage Guidelines

Provides status information.

retain-forever

Indicates that the associated job is to be retained *forever*, which means that the job will be retained until it is manually deleted with a **pdrm** command with a retention period of 0.

GUI label

Retain forever

DSS

All

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value

Usage Guidelines

- When the **retain-forever** attribute is not specified or is set to **false**, the other retention period attributes function normally.
- When the **retain-forever** attribute is set to **true**, the job is retained until it is manually deleted with a **pdrm** command.
- You can only specify one retention period attribute for each job. If you set a different retention period attribute, that attribute takes effect, and this one is cleared. The retention period attributes are **job-retain-until (Job only)**, **job-retention-period**, and **retain-forever**.

retention-period

See **job-retention-period**.

start-message

See **job-start-message**.

started-printing-time (Job Only)

Identifies the time when InfoPrint sent the job to the output device.

GUI label

Started printing

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value using the local time format. The USA format is "HH:MM:SS mm/dd/yy".

Default Value

No default value

state-reasons (Job Only)

See `job-state-reasons`.

submission-time (Job Only)

Identifies the time that InfoPrint added the job to the queue.

GUI label

Submit time

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value using the local time format. The USA format is "HH:MM:SS mm/dd/yy".

Default Value

No default value

Usage Guidelines

The AIX DSS prints this information on the start sheet.

submitter-ip-address (Job Only)

Identifies the IP address of the remote client submitting jobs to InfoPrint Manager. Jobs that are submitted through local receiver/gateways (such as IPP, lpd, or MVS Download) are not considered remote.

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value.

Default Value

No default value

Usage Guidelines

- InfoPrint Manager uses this attribute to hold the IP address of a client or receiver process submitting jobs to InfoPrint Manager.
- The **submitter-ip-address** attribute never appears unless the **PD_SUBMITTER_IP_ADDRESS_FORMAT=IPADDR** environment variable has been set. See Table 19 on page 976 for more information.

ticket-content

See **formatted-job-ticket-content**.

total-job-octets (Job Only)

Identifies the size of the job, which is the sum of all printable octets (bytes) in the job.

GUI label

Size (Bytes)

DSS

All

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **job-size**.

Allowed Values

InfoPrint sets this value to an integer from 0 to 9223372036854775800.

Default Value

No default value

Usage Guidelines

- The server computes this value by totaling the size of all printable documents, using this algorithm:
 1. For each printable document in the job, multiply the value of **octet-count** by the value of **copy-count**.
 2. Total the values from Step 1.
 3. Multiply the total by the value of **job-copies** component of the **results-profile** job attribute.
- InfoPrint validates jobs using this attribute against the actual destination attribute **job-size-range-supported**.
- InfoPrint schedules the job against the **job-size-range-ready** actual destination attribute and the **job-size-range-supported** actual destination attribute.

user-locale (Job Only)

Identifies the language of the information that appears on the start, separator, and end sheets printed with the job and the messages for the job.

GUI label

Submitter locale

DSS

All

Type

Non-settable, single-valued

Allowed Values

The locale of the job submitter.

Default Value

InfoPrint sets this value to the locale of the job submitter.

user-name (Job Only)

Identifies the login ID of the job submitter.

GUI label

Submitter ID

DSS

All

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the login ID of the job submitter: *username@node*.

Default Value

Set to the ID of the job submitter.

Attributes for logs

InfoPrint automatically creates logs when a server initializes. These logs contain and keep track of such things as error messages and trace messages for the server and objects contained in the server. You cannot create or delete these logs, but you can enable or disable them. InfoPrint uses a configuration file to set the initial values of attributes for error and trace logs when servers start.

These restrictions apply to log attributes:

- The **log-severity** attribute applies only to error logs.
- The **log-trace-groups** attribute applies only to trace logs.
- You cannot set the values for these attributes with the **pdset** command for trace logs. You can specify values using configuration files that InfoPrint uses during server initialization.
 - **log-address**
 - **log-backup-number**
 - **log-size** (trace logs only)

Initially settable attribute listing

You set this attribute based on the object type.

- **log-type**

Resettable attribute listing

You can set these attributes with the **pdset** command after InfoPrint creates the log.

- **descriptor**
- **log-severity**
- **log-trace-groups**
- **log-size** (error logs only)
- **log-wrap**

associated-server

Indicates the name of the server in which this log is located in.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the name of the server when it creates the log.

Default Value

No default value

descriptor

Provides a description of this log.

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that describes this log.

Default Value

If you do not enter a value, InfoPrint sets the value to:

<i>Log Type</i>	<i>Value</i>
Error	'This is the standard error log.'
Trace	'This is the standard trace log.'

Usage Guidelines

The use of this attribute is optional. However, a detailed description of the way you set up this log is useful to someone who wants to obtain information from the log.

enabled

Indicates if the log is enabled. An enabled log writes messages to a log file.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- **true**
- **false**

InfoPrint implicitly sets this value through the **pdenable** and **pddisable** commands.

Default Value

The default values are:

<i>Log Type</i>	<i>Value</i>
Error	true
Trace	false

log-address

Specifies the pathname where the log is located in.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the pathname.

Default Value

The path defined by the **PDBASE** environment variable plus the **ServerName** (**\$PDBASE/ServerName**).

log-backup-number

Specifies the number of backup logs to save.

Type

Non-settable, single-valued

Allowed Values

You can enter an integer from 1 through 999.

Default Value

Log Type	Value
Error	10
Trace	1

Usage Guidelines

When you specify a value for **log-backup-number** in the configuration file, you need to consider:

- If you specify **log-backup-number=10**, only ten backup logs will be saved over time.
- If you specify **log-backup-number=1**, only one backup log is saved.
- When the value for **log-backup-number** is less than the current number of backup log files, any logs beyond the specified **log-backup-number** are erased.

- The value specified in the configuration file, if one is specified, overrides the default value for this attribute when InfoPrint creates the server.

log-identifier

Uniquely identifies this log.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the name of the log.

Default Value

<i>Log Type</i>	<i>Value</i>
Error	default_error
Trace	default_trace

log-messages

Contains error messages that InfoPrint can return to you on a query.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint stores error log information as the value of this attribute.

Default Values

No default values

Usage Guidelines

Use this attribute with the **pdl**s command and its **message-count** attribute to query for error log information.

log-severity

Identifies the severity level of the messages that InfoPrint logs in this error log.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
error	This setting produces a minimum of logging. InfoPrint only logs error messages. The letter E precedes each message. An error referencing a job signals a condition that might prevent the job from completing successfully, depending on the setting of other parameters.
warning	InfoPrint logs both error and warning messages. The letter W precedes each warning message. A warning referencing a job signals a condition that will not prevent completion of the job, but might require some action on the part of the user or operator.
audit	This is the default log severity setting. InfoPrint logs error, warning, and audit messages. The letter A precedes each audit message.
debug	This setting logs error, warning, audit, and debug messages. Servers generate debug messages when they begin processing each command and when they communicate with other servers. Debug messages are useful for helping to track what command a server was processing when an error occurred. The letter D precedes each debug messages.
info	This setting logs error, warning, audit, debug, and informational messages. Servers generate informational messages when potentially abnormal situations occur, such as when a server cannot deliver a notification message to a user because the user is logged off. The letter I precedes each informational message.

Default Value

audit for AIX

When you don't use the `.cfg` files; otherwise, it is what is specified in the `spl_error.cfg`, `notifyd_error.cfg`, or `sap_error.cfg` file that you have moved to `/var/pd` after installation.

debug for Windows

Usage Guidelines

This attribute is only for error logs.

log-size

Specifies how large, in kilobytes, a log file can get before the file wraps, or InfoPrint stops logging events. The attribute **log-wrap** determines whether a log file wraps or stops logging.

Type

Non-settable (trace logs) or resettable (error logs), single-valued

Allowed Values

For an error log, you can enter an integer from 1 through 2147483647 (value represents kilobytes)

Default Value

<i>Log Type</i>	<i>Value</i>
Error	1024
Trace	8192

Usage Guidelines

- The value specified in the configuration file, if one is specified, overrides the default value when InfoPrint creates the server.
- If you change the value for this attribute, InfoPrint renames the current log file from *errorlogname* to *errorlogname.BAK*, and creates a new log file.

log-trace-groups

Specifies the active trace groups for the selective tracing of InfoPrint component groups.

Type

Resettable, multi-valued

Allowed Values

You can enter a text string of up to 4095 characters that contains trace group IDs that InfoPrint traces. You should enter a value only at the request of an Service Representative.

Default Value

???? -1 (All trace groups)

Usage Guidelines

This attribute is only for trace logs. You should use it only at the request of an Service Representative.

log-type

Identifies the type of log.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- **errorlog**
- **tracelog**

Default Value

No default value

log-wrap

Specifies whether the log file should wrap when it reaches the specified value in the **log-size** attribute.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

The value specified in the configuration file overrides the default value when InfoPrint creates the server.

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **log**.

Default Value

log

Attributes for logical destinations

InfoPrint uses logical destinations for job routing, defaulting, and job validation. Some logical destination attributes specify the values that the logical destination supports for the corresponding job and document attributes. Before accepting a job, InfoPrint verifies that the logical destination supports the values of these job and document attributes.

Notes:

1. If a logical destination attribute has no value, the logical destination supports all valid values for the corresponding job or document attribute.

2. If the value of the server attribute **accept-unsupported-jobs** is **false**, InfoPrint also verifies that at least one actual destination supports the job and document attribute values before accepting the job.
3. See Appendix C, “Job validation and scheduling,” on page 1039 for tables showing the attributes used for job validation.

Attributes not displayed in the InfoPrint Manager Administration GUI

While all logical destination attributes and attribute values are supported for both standard and basic InfoPrint installations, neither InfoPrint Manager Administration GUI displays a complete set.

- The standard InfoPrint Manager Administration GUI displays most attributes and attribute values, but omits a few that are used primarily in basic InfoPrint installations.
- The basic InfoPrint Manager Administration GUI displays only the attributes of greatest interest to InfoPrint administrators.

You can list the values of attributes not displayed in the InfoPrint Manager Administration GUI using the **pdls** command. You can set the values of initially settable and resettable attributes using the **pdcreate** command. You can change the values of resettable attributes using the **pdset** command.

Initially settable attribute listing

You can set this attribute with the **pdcreate** command when you create a logical destination.

- **destination-realization**

Resettable attribute listing

You can set these attributes with the **pdcreate** command when you create a logical destination or modify them with the **pdset** command after you create the logical destination.

- **associated-queue**
- **authorize-jobs**
- **auxiliary-sheet-selections-supported**
- **carriage-control-types-supported**
- **character-mappings-supported**
- **client-driver-names**
- **content-orientations-supported**
- **convert-to-ebcdic-supported**
- **data-fidelity-problem-reported-supported**
- **descriptor**
- **destination-initial-value-document**
- **destination-initial-value-job**
- **destination-locations**
- **destination-model**
- **destination-support-system**
- **document-formats-supported**

- document-types-supported
- end-message-supported
- form-length-range-supported
- hot-folder-directory
- hot-folder-polling-interval
- hot-folder-polling-method
- image-out-formats-supported
- input-trays-supported
- job-size-range-supported
- list-of-managers
- maximum-copies-supported
- media-supported
- message
- notification-profile
- page-select-supported
- plexes-supported
- print-qualities-supported
- sides-supported
- start-message-supported
- table-reference-characters-supported
- x-image-shift-range-supported
- y-image-shift-range-supported

associated-queue

Identifies the queue associated with this destination. Whenever InfoPrint accepts a job submitted to this logical destination, it sends the job to the queue specified by this attribute.

GUI label

Queue fed

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 255 characters that contains the name of the queue.

Default Value

No default value

associated-server

Indicates the name of the server in which this logical destination is located in.

GUI label

Server

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *DestinationName* portion of the argument when this logical destination was created.

Default Value

No default value

authorize-jobs

Indicates whether the person submitting the job requires authorization to submit a job to this logical destination.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

When the server security level is **low**, these rules apply when the value for this attribute is:

true InfoPrint uses the login ID of the job submitter to check if the person has **read** authority for this destination. If the person does have **read** authority, InfoPrint authorizes the job.

false InfoPrint automatically authorizes the job.

auxiliary-sheet-selections-supported

Identifies the combination of start, separator, and end sheets that this logical destination supports for jobs.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **end**
- **none**
- **sep**
- **sep-end**
- **start**
- **start-end**
- **start-sep**
- **start-sep-end**

Default Values

No default values (all valid values supported).

Usage Guidelines

- If you do not specify a value, the corresponding actual destination attribute controls which auxiliary sheets a user can request. The default values for the actual destination attribute are all of the supported values.
- InfoPrint compares the job attribute **auxiliary-sheet-selection** to this attribute for validation.
- You can use this attribute to restrict use of this logical destination.

carriage-control-types-supported

Identifies the types of carriage controls that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **ansi-ascii**
- **ansi-ebcdic**
- **machine**
- **none**

Default Values

No default values (all valid values supported).

Usage Guidelines

- InfoPrint compares the document attribute **carriage-control-type** to this attribute for job validation.
- You can use this attribute to restrict use of this logical destination.

character-mappings-supported

Identifies the character mappings (code pages) that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **ibm-437**
- **ibm-850**
- **ibm-860**
- **ibm-863**
- **ibm-865**
- **ibm-932**
- **ibm-938** with InfoPrint Manager for AIX only
- **ibm-euccn**
- **ibm-eucjp**
- **ibm-euckr**
- **ibm-euctw**

Default Value

No default values (all valid values supported).

Usage Guidelines

- InfoPrint compares the document attribute **default-character-mappings** to this attribute for job validation.
- You can use this attribute to restrict use of this logical destination.

client-driver-names

Identifies the 32-bit client print drivers that can submit a data stream to this logical destination. Setting this attribute makes the logical destination usable from InfoPrint Manager Select.

GUI label

Client drivers

Type

Resettable, multi-valued

Input Synonyms

You can use the synonym **windows-nt-driver-names**.

Allowed Values

You can enter a text string that contains the string form of the client print driver for each permitted client print driver. Begin and end the string with single quotation marks.

Default Values

No default values

Usage Guidelines

- Perform this procedure to determine the valid client driver names:
 1. Click **My Computer** from the desktop.
 2. Click **Control Panel**.
 3. Click **Printers**.
 4. Click **Add Printer**.
 5. The values listed in the **Printer:** list box in the **Add Printer Wizard** are the names of the Windows destination drivers that you can install on the workstation; for example, **4039 LaserPrinter PS**.

Notes:

1. Other destination drivers are available and might not display in the list for a particular workstation.
 2. If you will be submitting jobs from the Windows client to a PSF actual destination, you should select a generic destination driver, such as a PostScript driver, instead of one for a specific type of destination. Otherwise, the driver might generate device-specific data streams that InfoPrint cannot transform correctly.
- You can use this attribute to restrict the use of this logical destination.

content-orientations-supported

Identifies the page presentations that this logical destination supports.

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **orientations-supported**.

Allowed Values

You can enter any of these fixed values:

- **landscape**
- **portrait**
- **reverse-landscape**
- **reverse-portrait**

Default Values

No default values (all valid values supported).

Usage Guidelines

- InfoPrint compares the document attribute **content-orientation** to this attribute for job validation.
- If you do not specify a value for this attribute, the corresponding actual destination attribute controls orientations. The default for the actual destination attribute is **portrait**.
- InfoPrint supplies attribute files that specify the values that a particular destination model supports.
- You can use this attribute to restrict use of this logical destination.

convert-to-ebcdic-supported

Indicates whether this logical destination supports converting document data from ASCII to EBCDIC.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value (all valid values supported).

Usage Guidelines

- Use this attribute to request conversion for line-data jobs sent to a PSF actual destination.
- If you do not specify a value for this attribute, the corresponding actual destination attribute controls conversion. The default value for the actual destination attribute is **true**.

Note: The corresponding document attribute, **convert-to-ebcdic**, defaults to no value. Specify **true** only if you want to convert the content of the document from ASCII to EBCDIC. Validation only fails if you set **convert-to-ebcdic** to **true** and either this logical destination value or the actual destination attribute value is **false**.

- InfoPrint compares the document attribute **convert-to-ebcdic** to this attribute for job validation.
- You can use this attribute to restrict use of this logical destination.

data-fidelity-problem-reported-supported

Indicates which type of data fidelity errors this logical destination can report.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **all**
- **character**
- **none**
- **position**

Default Values

No default values (all valid values supported).

Usage Guidelines

- Use this attribute to specify whether InfoPrint issues error messages for print-positioning and invalid-character errors that occur for TCP/IP-attached printer devices.

Print positioning errors occur when the print position for the data is beyond the valid printable areas as defined by the intersection of the physical and logical pages. (A logical page identifies the printing boundaries of a physical page.)

Invalid-character errors occur when the code point does not map to a character in a font.

- InfoPrint compares the document attribute **data-fidelity-problem-reported** to this attribute for validation.
- You can use this attribute to restrict use of this logical destination.

descriptor

Provides a textual description of this logical destination.

GUI label

Description

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that contains a description of this logical destination. You might want to include such information as:

- The name of the department or the account number of the users who use this logical destination.
- Usage information, such as whether the logical destination provides default values for jobs or restricts use of actual destination capabilities.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description is useful if you have several logical destinations or have set up restriction for this logical destination.

destination-associated-destinations

Identifies the actual destinations that receive jobs from the queue associated with this logical destination.

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **printer-associated-printers**.

Allowed Values

InfoPrint sets this value, and the queue attribute **actual-destinations-assigned** of the queue associated with this logical destination, when the actual destination registers.

Default Values

No default value

destination-initial-value-document

Associates a default document with this logical destination.

GUI label

Default document

Type

Resettable, single-valued

Input Synonym

You can use the synonym **printer-initial-value-document**.

Allowed Values

You can enter a text string of up to 255 characters that contains the name of the default document.

Default Value

No default value

Usage Guidelines

The default document supplies values for attributes for documents submitted to this logical destination. These values override server defaults but are overridden by document attribute values specified on the command line.

destination-initial-value-job

Associates a default job with this logical destination.

GUI label

Default job

Type

Resettable, single-valued

Input Synonym

You can use the synonym **printer-initial-value-job**.

Allowed Values

You can enter a text string of up to 255 characters that contains the name of the default job.

Default Value

No default value

Usage Guidelines

The associated default job supplies values for attributes of jobs submitted to this logical destination. These values override server defaults but are overridden by job attribute values specified on the command line.

destination-locations

Identifies the locations of output devices, or the areas they service, that this logical destination allows for jobs.

GUI label

Actual destination locations

Type

Resettable, multi-valued

Input Synonyms

You can use the synonym **printer-locations** or **locations**.

Allowed Values

You can enter a text string of up to 4095 characters, per value, that contains the locations of the output devices associated with this logical destination.

Default Values

No default values (all valid values supported).

Usage Guidelines

- InfoPrint compares the job attribute **destination-locations-requested** to this attribute for validation.
- You can use this attribute to restrict use of this logical destination.
- You can query this attribute to find where destinations are located.

destination-model

Identifies the make and model ID of an output device that can accept jobs submitted through this logical destination.

Type

Resettable, single-valued

Input Synonyms

You can use the synonym **printer-model** or **model**.

Allowed Values

You can enter a text string of up to 4095 characters, per value, that contains the make and model of an output device.

Default Value

No default value (all valid values supported).

destination-name

Identifies this logical destination.

Type

Non-settable, single-valued

Input Synonyms

You can use the synonym **printer-name**, **printer**, or **logical-printer**.

Allowed Values

InfoPrint sets this value to the *DestinationName* portion of the argument specified by the **pdcreate** command used to create this logical destination.

Default Value

No default value

Usage Guidelines

- The logical destination name must be unique in the namespace.
- InfoPrint compares the job attribute **actual-destination-requested** to this attribute for validation.

destination-realization

Indicates whether the destination is an actual destination or a logical destination.

Type

Initially settable, single-valued

Input Synonym

You can use the synonym **printer-realization**.

Allowed Values

You can enter **logical** as the value for the **destination-realization** attribute for a logical destination.

Default Value

There is no default value.

destination-support-system

Identifies the DSS (type of device driver) allowed for jobs submitted to this logical destination.

Type

Resettable, single-valued

Input Synonym

You can use the synonym **device-support-system**.

Allowed Values

For AIX:

<i>Fixed Value</i>	<i>Input Synonym</i>
aix	piobe

<i>Fixed Value</i>	<i>Input Synonym</i>
bsd	
psf	
email	
generalized fax	
IP2000	
metacode	
sapconnect	

For Windows:

<i>Fixed Value</i>	<i>Input Synonym</i>
bsd	
psf	
IPP	
windows	passthrough

Default Value

No default value (all valid values supported).

Usage Guidelines

InfoPrint compares the job attribute **dss-requested** to this attribute for validation.

destinations-ready

Identifies the actual destinations associated with this logical destination that are ready to process a job.

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **printers-ready**.

Allowed Values

InfoPrint sets this value with the name of an actual destination when a registered actual destination is ready.

A ready actual destination is one that is enabled and whose state is **idle**, **connecting-to-printer**, or **printing**.

Default Values

No default value

device-support-system

See `destination-support-system`.

document-formats-supported

Identifies the document formats that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
ascii	
dbcs-ascii	
ditroff	
dpf-ipds	
d630	
epson	
gif	
hpgl	hp-gl
iso-6429	
jpeg	
kg1	
line-data	
modca-p	afpds
passthru	
pcl	hppcl, hp-pcl
pdf	
postscript	ps
ppds	
ppml	
sap	
sap-abap	
simple-text	text
tiff	
xml	

Default Values

No default values (all valid values supported).

Usage Guidelines

- InfoPrint compares the document attribute **document-format** to this attribute for job validation.
- All documents in a job must have the same format.
- You can use this attribute to restrict use of this logical destination.

document-types-supported

Identifies the types of documents that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>DSS</i>
color-mapping-table	PSF
document-definition	PSF DSS for AIX, Email, Generalized Fax, InfoPrint 2000
email-body	Email
email-signature	Email
file-reference	All
font	PSF, Email, Generalized Fax, InfoPrint 2000
form-definition	PSF, Email, Generalized Fax, InfoPrint 2000
formatted-job-ticket	PSF, Email, Generalized Fax, InfoPrint 2000
insert-sheet	PSF, Email, Generalized Fax, InfoPrint 2000
job-ticket	PSF, Email, Generalized Fax, InfoPrint 2000
overlay	PSF, Email, Generalized Fax, InfoPrint 2000
page-definition	PSF, Email, Generalized Fax, InfoPrint 2000
page-segment	PSF, Email, Generalized Fax, InfoPrint 2000
page-shift-file	PSF, Email, Generalized Fax, InfoPrint 2000
printable	All
resource	PSF DSS for AIX, Email, Generalized Fax, InfoPrint 2000

Default Value

No default values (all valid values supported).

Usage Guidelines

- InfoPrint compares the document attribute **document-type** to this attribute for job validation.
- You can use this attribute to restrict use of this logical destination.

enabled

Indicates whether this logical destination is enabled and can accept jobs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets and resets this value to one of these fixed values:

- **true**
- **false**

InfoPrint sets and resets this value based on the **pdenable** and **pddisable** commands.

Default Value

false

end-message-supported

Indicates whether this logical destination supports the job attribute **job-end-message**.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value (all valid values supported).

Usage Guidelines

- When you set this attribute value to **true**, operators can receive messages that users specify with the **job-end-message** job attribute when they submit the job. InfoPrint sends the message to the operators specified by the **notify-operator** attribute for this actual destination when the job finishes printing.
- InfoPrint compares the job attribute **job-end-message** to this attribute for validation.
- You can use this attribute to restrict use of this logical destination.

form-length-range-supported

Specifies, in millimeters, the lower and upper numeric boundaries for the **form-length** document attribute that lets you specify the length of the form on the logical printer.

GUI label

Form length range supported

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Separate values with colons, for example,

0:0 To turn off the **form-length** attribute specification for the destination (because a value of 0 for **form-length** has no effect).

0:609.6 To enforce the maximum value for **form-length**, which is 609.6 mm (24.0 inches).

Components

- **lower-limit**

Defines the minimum length that you can specify with the **form-length** document or default document attribute.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from 0 mm through 3467.9 mm. The unit of measure is millimeters.

- **upper-limit**

Defines the maximum length that you can specify with the **form-length** document or default document attribute.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from 0 mm through 3467.9 mm. The unit of measure is millimeters.

Usage Guidelines

- InfoPrint compares the **form-length** document attribute to this attribute for validation.
- You can use this attribute to restrict use of this logical destination.

hot-folder-directory

Specifies the name of the hot folder associated with this logical destination. When a hot-folder directory is specified with this attribute and the associated logical destination is enabled, the InfoPrint server starts monitoring the named directory and automatically submits files that are placed in it to the associated logical destination.

GUI label

Hot folder location

Type

Resettable

Allowed Values

You can enter a text string up to 255 characters long that identifies the hot folder directory.

Default Values

No default values

Usage Guidelines

- This attribute must specify the name of the hot folder that is recognized by the InfoPrint server. For example, a client can access the hot folder as K:\hot folder, while the server accesses it as /var/pd/hot folder; the name specified with the **hot-folder-directory** attribute must be /var/pd/hot folder.
- It is strongly recommended that you create your hot folder on the same system where your InfoPrint Manager server is installed. The polling traffic created by the InfoPrint Manager server process when it is looking for new files might cause performance degradation of the remote server hosting the directory, the InfoPrint Manager system, or the network connection between them.

hot-folder-polling-interval

Specifies the time interval in seconds that passes between two hot folder polls.

GUI label

Hot folder poll interval

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 to 9999.

Notes:

1. The unit is seconds.
2. When you specify the attribute value as 9999, the time interval is 9999 seconds but not indefinite.

Default Values

30

Usage Guidelines

- To use this attribute, the **hot-folder-polling-method** attribute must be specified as **File size monitoring**.
- If you have the problem the files are submitted before they finish copying, it is recommend that you increase the poll interval.

hot-folder-polling-method

Specifies the method that InfoPrint Manager uses when polling for hot folder files.

GUI label

Hot folder poll method

Type

Single-valued

Allowed Values

You can select one of these fixed values:

- **File size monitoring**
- **File access monitoring**

Default Values

File access monitoring

Usage Guidelines

- If you are using Network File System (NFS), it is recommended that you specify this attribute value as **File size monitoring**.
- When the **hot-folder-polling-method** attribute is specified as **File size monitoring**, you can use the **hot-folder-polling-method** attribute to specifies the time interval in seconds that should pass between two hot folder polls.

image-out-formats-supported

Specifies the formats of the image data, produced by the program that converts line data to AFP data, that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **ioca-uncompressed**
- **im1**
- **io1**
- **io1-g4**
- **io1-mmr**
- **asis**

Default Values

No default values (all valid values supported).

Usage Guidelines

- InfoPrint compares the document attribute **image-out-format** to this attribute for job validation. You should use the document attribute when you print line-data documents.

- The value **io1-g4** applies only to the destination. You cannot request this value with the document attribute **image-out-format**. If the document format is **postscript** and the value **io1-g4** for this attribute is:

Present

The PostScript transform produces IO1-G4 images.

Not present

The PostScript transform produces IM1 images instead of IO1-G4 images, which the printer device associated with an actual destination that receives jobs from the queue associated with this logical destination cannot print.

input-trays-supported

Specifies the types of input trays that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

auto-envelope-feed	top
automatic-tray	tray-1
auxiliary-envelope	tray-2
auxiliary-paper	tray-3
bottom	tray-4
continuous-form-feed	tray-5
current-selected-tray	tray-6
envelope	tray-7
high-capacity-feeder	tray-8
large-capacity	tray-9
manual	tray-10
manual-envelope-feed	capacity-2000-sheet
middle	

or any input tray name, for example:

- **alternate**
- **auto-envelope-feed**
- **bottom**
- **continuous-form-feed**
- **envelope**
- **insert**
- **large-capacity**
- **manual**
- **manual-envelope-feed**
- **middle**
- **top**

Default Values

No default values (all valid values supported).

Usage Guidelines

- You can use this attribute to restrict the use of this logical destination.
- If you do not specify a value for this attribute, the corresponding actual destination attribute determines which input trays the actual destination supports and users can request.
- InfoPrint compares the document attribute **default-input-trays** or **input-tray-select** to this attribute for job validation.

job-size-range-supported

Defines the range of job sizes in bytes (octets) that this logical destination will accept.

Type

Resettable, single-value, complex

Syntax

lower-limit:upper-limit

Separate the limits by a colon (:), for example:

```
0:1000000000
```

You can omit either value, for example:

```
0:  
:1000000000
```

Note: If you enter a single value without a colon (*integer*), it is considered the lower limit.

Components

- **lower-limit**

Provides the lower limit of the job size range.

- *Type*

- Single-valued

- *Allowed Values*

- You can enter an integer from 0 to 9223372036854775800. The lower limit must be less than or equal to the upper limit. The unit value is bytes (octets).

- *Default Value*

- No default value

- **upper-limit**

Provides the upper limit of the job size range.

- *Type*

- Single-valued

- *Allowed Values*

You can enter an integer from 0 to 9223372036854775800. The upper limit must be greater than or equal to the lower limit. The unit value is bytes (octets).

- *Default Value*
9223372036854775800

Usage Guidelines

- InfoPrint compares the job attribute **total-job-octets** to this attribute for validation.
- You can use this attribute to restrict the use of this logical destination.

list-of-managers

Lists the people responsible for the configuration and operation of this logical destination.

GUI label

Managers

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **managers**.

Allowed Values

You can enter a text string up to 255 characters long, per value, that contains the name or user ID of the person responsible for this logical destination.

Default Values

No default values

Usage Guidelines

This attribute is useful if a user needs to contact someone to report a problem or to request a change.

locations

See **destination-locations**.

logical-printer

See **destination-name**.

managers

See **list-of-managers**.

maximum-copies-supported

Indicates the number of document copies, in a single job, that this logical destination allows.

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647.

Default Value

No default value (all valid values supported).

Usage Guidelines

- You can use this attribute to restrict the use of this logical destination by limiting the number of document copies that a user can request for jobs submitted to this logical destination.
- If you do not specify a value for this attribute, the corresponding actual destination attribute controls the number of copies allowed.
- InfoPrint compares the document attribute **copy-count** to this attribute for job validation.

media-supported

Identifies the types of media that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter a text string that contains the names of the media. These can be:

- The medium identifiers of medium objects created by the **pdcrmed** utility. For these fixed values, see the medium **medium-identifier** attribute.
- The medium identifiers of medium objects you created yourself.
- Any names that describe the media, even if no medium objects with those names exist.

Default Values

No default values (all valid values supported).

Usage Guidelines

- You can restrict the use of this logical destination by limiting the type of media that a user can request for jobs submitted to actual destinations.
- If you do not specify a value for this attribute, the corresponding actual destination attribute determines which media the actual destination supports and users can request.

- InfoPrint compares the document attribute **default-medium** or **page-media-select** to this attribute for job validation.

message

Provides information associated with this logical destination.

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that contains information about this logical destination.

Default Value

No default value

model

See **destination-model**.

notification-profile

Designates which persons InfoPrint notifies of specific events related to this logical destination, and how InfoPrint notifies them.

GUI label

Notification profile

Type

Resettable, multi-valued, complex

Syntax

```
-x "notification-profile={event-identifiers=event ...  
  delivery-address=name@node delivery-method=value  
  event-comment='some text' locale=locale}"
```

For example:

```
-x "notification-profile={event-identifiers=class-logical-destination-status  
  delivery-address=jim@staff delivery-method=e-mail  
  event-comment='everything ok' locale=En_US.IBM-850}"
```

You can omit any of these components.

Components

- **event-identifiers**
Specifies the events for which InfoPrint issues notification messages.
 - *Type*

Multi-valued

– *Allowed Values*

You can enter any of the values listed for the server **events-supported** attribute.

– *Default Values*

object-deleted, object-cleaned

- **delivery-address**

Identifies the address of the person who receives event messages or the directory and file name where InfoPrint stores messages.

– *Type*

Single-valued

– *Allowed Values*

You can enter a name and node or a path and file name.

– *Default Value*

The login ID of the user who created this logical destination.

– *Usage Guidelines*

You must specify a value for **delivery-address** if you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for the **delivery-method** component.

- **delivery-method**

Specifies how event messages are received.

– *Type*

Single-valued

– *Allowed Values*

You can enter one of these fixed values:

Fixed

Value	Input Synonym
--------------	----------------------

electronic-mail	e-mail, email
------------------------	----------------------

file

file-add-to

message

exit

none

wireless

– *Default Value*

message

– *Usage Guidelines*

If you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for this component, you must specify a value for the **delivery-address** component.

- **event-comment**

Provides a comment that InfoPrint appends to the event message.

– *Type*

Single-valued

– *Allowed Values*

You can enter a text string of up to 4095 characters that contains the comment.

- *Default Value*
No default value

- **locale**

Defines the language and code page of notification messages.

- *Type*
Single-valued
- *Allowed Values*

You can enter any locale for which the InfoPrint messages in the corresponding language are installed.

- *Default Value*
The locale of the person who created this logical destination.

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **destination**.

Default Value

destination

orientations-supported

See **content-orientations-supported**.

page-select-supported

Specifies the type of page number that this logical destination supports.

Type

Resettable, multi-valued

Allowed Values

You can enter a fixed value of **numeric**. This means that the value for the document attribute **page-select** can only be numeric.

Default Value

numeric

Usage Guidelines

InfoPrint compares the document attribute **page-select** against this attribute for job validation and scheduling.

plexes-supported

Identifies the plexes that this destination supports. Plex indicates whether the page images of the output document are conditioned for eventual one-sided or two-sided printing, and the relative orientation of consecutive pages.

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

- **simplex**
- **tumble**

Default Values

No default values (all valid values supported).

Usage Guidelines

InfoPrint compares the document attribute **plex** to this attribute for job validation.

print-qualities-supported

Identifies the levels of print quality that this logical destination supports.

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **qualities-supported**.

Allowed Values

You can enter any of these fixed values:

- **draft**
- **high**
- **normal**

Default Value

No default value (all valid values supported).

Usage Guidelines

- InfoPrint compares the document attribute **print-quality** to this attribute for job validation.
- You can use this attribute to restrict use of this logical destination.

printer

See `destination-name`.

printer-associated-printers

See `destination-associated-destinations`.

printer-initial-value-document

See `destination-initial-value-document`.

printer-initial-value-job

See `destination-initial-value-job`.

printer-locations

See `destination-locations`.

printer-model

See `destination-model`.

printer-name

See `destination-name`.

printer-realization

See `destination-realization`.

printers-ready

See `destinations-ready`.

qualities-supported

See `print-qualities-supported`.

sides-supported

Identifies whether this logical destination supports printing on one or both sides of the media.

Type

Resettable, multi-valued

Allowed Values

You can enter an value of **1**, **2**, or both.

Default Value

No default value (all valid values supported).

Usage Guidelines

- You can use this attribute to restrict use of this logical destination.
- If you do not specify a value for this attribute, the corresponding actual destination attribute controls the printable sides that users can request.
- InfoPrint compares the document attribute **sides** to this attribute for job validation.

start-message-supported

Indicates whether this logical destination supports the job attribute **job-start-message**.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value (all valid values supported).

Usage Guidelines

- When you set this attribute value to **true**, operators can receive messages that users specify with the **job-start-message** job attribute when they submit the job. InfoPrint sends the message to the operators specified by the **notify-operator** attribute for this actual destination when the job starts printing. Sending a start message does not stop the job from printing; normally the job prints without operator intervention.
- InfoPrint compares the job attribute **job-start-message** to this attribute for validation.
- You can use this attribute to restrict use of this logical destination.

table-reference-characters-supported

Identifies whether this logical destination supports table-reference characters. Some line-data applications produce table-reference characters to specify font changes.

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

No default value (all valid values supported).

Usage Guidelines

- If you do not specify a value for this attribute, the corresponding actual destination attribute determines whether the actual destination can process table reference characters.
The corresponding document attribute, **table-reference-characters**, defaults to no value. Specifies **true** only if the line data contains table reference characters that should be processed. Validation fails only if you set **table-reference-characters** to **true** and either this logical destination value or the actual destination attribute value is **false**.
- InfoPrint compares the document attribute **table-reference-characters-supported** to this attribute for job validation.
- You can use this attribute to restrict use of this logical destination.

x-image-shift-range-supported

Specifies, in millimeters, the lower and upper numeric boundaries for the X offset of a page. The X offset, along with the Y offset, sets the origin of the logical page on the physical page.

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Each value uses a format of *nnnn.nnn* where *nnnn.nnn* is the decimal millimeter value. Separate the values with a colon, for example:

1:10

Components

- **lower-limit**

Defines the minimum amount of image shift that the document or default document attribute **x-image-shift** or **x-image-shift-back** can specify.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from -2147483647 through 577.97 mm.

- *Default Value*

No default value

- **upper-limit**

Defines the maximum amount of image shift that the document or default document attribute **x-image-shift** or **x-image-shift-back** can specify.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from -2147483647 through 577.97 mm.

- *Default Value*

No default value

Usage Guidelines

You can use this attribute to restrict use of this logical destination.

y-image-shift-range-supported

Specifies, in millimeters, the lower and upper numeric boundaries for the Y offset of a page. The Y offset, along with the X offset, sets the origin of the logical page on the physical page.

Type

Resettable, single-valued, complex

Syntax

lower-limit:upper-limit

Each value uses a format of *nnnn.nnn* where *nnnn.nnn* is the decimal millimeter value. Separate the values with a colon, for example:

1:20

Components

- **lower-limit**

Defines the minimum amount of image shift that the document or default document attribute **y-image-shift** or **y-image-shift-back** can specify.

- *Type*

Single-valued

- *Allowed Values*

You can enter a numeric value from -2147483647 through 577.97 mm.

- *Default Value*
No default value
- **upper-limit**
Defines the maximum amount of image shift that the document or default document attribute **y-image-shift** or **y-image-shift-back** can specify.
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a numeric value from -2147483647 through 577.97 mm.
 - *Default Value*
No default value

Usage Guidelines

You can use this attribute to restrict use of this logical destination.

Attributes for media

A medium represents the type of media, that is, paper, envelopes, transparencies, or multi-part forms, on which a printer device prints.

InfoPrint uses the names of media as values for actual destination attributes, such as **media-supported**. Actual destination attributes that reference media can use any name as long as the name is in syntax limits. The AIX DSS validates any actual destination attribute that references a medium to make sure that the object exists. The BSD and PSF DSSs accept values that are not the names of existing media.

You must create at least the default medium objects. The **startsrv** utility normally creates the default medium objects. If it fails to do so, use the **pdcrflt** utility to create the default medium and auxiliary sheet objects.

Attributes not displayed in the InfoPrint Manager Administration GUI

While all medium attributes are supported for both standard and basic InfoPrint installations, the standard InfoPrint Manager Administration GUI does not display media. The basic InfoPrint Manager Administration GUI displays only the medium attributes of greatest interest to InfoPrint administrators.

You can list the values of attributes not displayed in the InfoPrint Manager Administration GUI using the **pdls** command. You can set the values of initially settable and resettable attributes using the **pdcreate** command. You can change the values of resettable attributes using the **pdset** command.

Initially settable attribute listing

There are no initially settable attributes for a medium.

Resettable attribute listing

You can set these attributes with the **pdcreate** command when you create a medium or modify them with the **pdset** command after you create the medium.

- **descriptor**
- **medium-color**
- **medium-dimensions**
- **medium-form-parts**
- **medium-holes-count**
- **medium-sides**
- **medium-size**
- **medium-type**
- **medium-weight**
- **message**

associated-server

Indicates the name of the server in which this medium is located in.

GUI label

Server

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the value of the *ServerName* portion of the argument when you create the medium using the **pdcreate** command.

Default Value

No default value

descriptor

Provides a description of the medium.

GUI label

Description

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that describes this medium.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description of this medium and its use is helpful to users who want to determine if this is the medium that they want to use.

medium-color

Indicates the color of this medium.

GUI label

Color

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values or some other color:

Fixed Value

blue
buff
goldenrod
green
pink
transparent-untinted
white
yellow

Default Value

No default value

Usage Guidelines

Specifying the color can be useful if you have configured a large number of AIX actual destinations and have used the **media-supported** and **input-trays-medium** attributes to identify the different types of media that the actual destination supports and the media currently loaded in the input trays of each printer device. This allows a user to query and filter for the colors of various medium objects to determine the medium to use for a job.

medium-dimensions

Specifies the physical size (width and length), in millimeters, of the medium.

GUI label

Untrimmed width and length (*inches or mm*)

Type

Resettable, single-valued, complex

Syntax

You can enter two positive real numbers separated by a colon.

x-dimension:y-dimension

For example:

100.8:200.4

Components

- **x-dimension**

Specifies the width of the medium, which is usually the shorter dimension in respect to how the medium is loaded into the printer device.

- *Type*

Single-valued

- *Allowed Values*

You can enter a positive real number, which can optionally contain a decimal point. The unit is millimeters.

- *Default Value*

No default value

- **y-dimension**

Specifies the height of the medium, which is usually the longer dimension in respect to how the medium is loaded into the printer device.

- *Type*

Single-valued

- *Allowed Values*

You can enter a positive real number, which can optionally contain a decimal point. The unit is millimeters.

- *Default Value*

No default value

Usage Guidelines

- The medium must contain this value if AIX actual destinations use the medium.
- The **pio** backend uses the value of this attribute to determine the printable area of the medium.
- How you specify the dimensions depends on the printer model and how the medium is loaded. If you get unexpected output from a printer device, try reversing the order in which you specify the dimensions for a medium that the actual destination references.

medium-form-parts

Indicates the number of form parts for this multi-part form medium.

GUI label

Number of form parts

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647.

Default Value

No default value

Usage Guidelines

This attribute only applies to media whose **medium-type** is **multi-part-forms**.

medium-holes-count

Indicates the number of holes (if any), pre-punched in the medium.

GUI label

Number of holes

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

No default value

medium-identifier

Uniquely identifies a particular medium in a server.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *MediumName* portion of the argument when you create this medium. The value is either a text string up to **255** characters that you enter or one of these fixed values:

A0	c	na-7x9-envelope
A1	d	na-9x11-envelope
A2	designated-long-envelope	na-9x12-envelope
A3	e	na-10x13-envelope
A3-colored	executive	na-10x14-envelope
A4	folio	na-10x15-envelope
A4-colored	hagaki	quarto
A4-transparent	invoice	RA3
A4-tab	jis-b0-white	RA4
A5	jis-b1-white	statement
A5-colored	jis-b2-white	tabloid
A6	jis-b3-white	universal-paper
A7	jis-b4-colored	universal-envelope
A8	jis-b4-white	7.75 envelope
A9	jis-b5-colored	8Kai
A10	jis-b5-white	8x10
B0	jis-b6-white	8x10.5
B1	jis-b7-white	8x13
B2	jis-b8-white	8.25x13
B3	jis-b9-white	8.25x14
B4	jis-b10-white	8.5x10
B4-colored	JPOSTD	8.5x12.4
B4-envelope	ledger	9x11
B5	legal	9x14
B5-colored	legal-tab	10x14
B5-envelope	letter	11x14
B6	letter-tab	11x15
B7	manual	12x18
B8	monarch-envelope	14x17
B9	na-legal-colored	14x18
B10	na-letter-colored	16Kai
C4-envelope	na-letter-transparent	170x210
C5-envelope	na-number-9-envelope	182x210
a	na-number-10-envelope	
b	na-6x9-envelope	

Default Value

No default value

medium-sides

Indicates the number of printable sides for the medium.

GUI label

Number of sides

Type

Resettable, single-valued

Allowed Values

You can enter an integer of 1 or 2.

Default Value

No default value

medium-size

Specifies the size of the medium by means of a predefined name for the size. Examples of values include **invoice**, which specifies a medium of 5.5 inches by 8.5 inches, and **ledger**, which specifies a size of 11 inches by 17 inches.

GUI label

Size

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

iso-a0	iso-b9	jis-b5
iso-a1	iso-b10	jis-b6
iso-a2	iso-c3	jis-b7
iso-a3	iso-c4	jis-b8
iso-a4	iso-c5	jis-b9
iso-a5	iso-c6	jis-b10
iso-a6	a	ledger
iso-a7	b	monarch-envelope
iso-a8	c	na-legal
iso-a9	d	na-letter
iso-a10	iso-designated-long	na-number-9-envelope
iso-b0	e	na-number-10-envelope
iso-b1	executive	na-6x9-envelope
iso-b2	folio	na-7x9-envelope
iso-b3	invoice	na-9x11-envelope
iso-b4	jis-b0	na-9x12-envelope
iso-b5	jis-b1	na-10x13-envelope
iso-b6	jis-b2	na-10x14-envelope
iso-b7	jis-b3	na-10x15-envelope
iso-b8	jis-b4	quarto

Default Value

No default value

medium-type

Identifies the medium type.

GUI label

Type

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Description</i>
bond	Bond paper
card-stock	Card stock paper
color	Colored paper
continuous-long	Continuous-forms paper with the forms connecting along the long edge of the form.
continuous-short	Continuous-forms paper with the forms connecting along the short edge of the form.
cover	Paper designed to be used as a cover sheet
envelope	Standard envelopes that might or might not have preprinted information and that do not have windows.
envelope-plain	Envelopes without preprinted information or a window
envelope-window	Envelopes with a window
insert	Paper to be used as an insert between other sheets
labels	Any type of label.
letterhead	Paper with a preprinted letterhead
multi-layer	Sheet that has multiple layers of some sort
multi-part-form	Forms containing multiple layers that are not attached to one another.
plain	Separately cut sheets of paper
preprinted	Paper that has some sort of preprinted information
prepunched	Paper that has already been punched in some fashion
recycled	Paper made from recycled materials
stationery	Separately cut sheets of paper
tab-stock	Paper that has tabs.
transparency	Separate sheets of a transparent material.

Default Value

No default value

medium-weight

Identifies the medium weight.

GUI label

Weight (grams)

Type

Resettable, single-valued

Allowed Values

You can enter a positive real number.

Default Value

No default value

message

Provides a message associated with this medium object.

GUI label

Details

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that contains information about this medium object.

Default Value

No default value

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **medium**.

Default Value

medium

Attributes for queues

A queue is an InfoPrint 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.

Initially settable attribute listing

There are no initially settable attributes for queues.

Resettable attribute listing

You can set these attributes with the **pdcreate** command when you create the queue or modify them with the **pdset** command after you create the queue.

- **assign-to-destination**
- **backlog-lower-bound**
- **backlog-update-interval**
- **backlog-upper-bound**
- **descriptor**
- **list-of-managers**
- **message**
- **notification-profile**
- **notify-operator**
- **requeue-failed-jobs**

actual-destinations-assigned

Lists the actual destinations that receive jobs from this queue.

GUI label

Actual destinations assigned

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **physical-printers-assigned**.

Allowed Values

InfoPrint adds the actual destination name to this value when each actual destination registers and its **associated-queue** attribute value is the name of this queue.

Default Value

No default value

actual-destinations-ready

Lists the ready actual destinations that can receive jobs from this queue.

GUI label

Actual destinations ready

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **physical-printers-ready**.

Allowed Values

InfoPrint adds an actual destination name to this value for each actual destination that can receive a job from this queue. An actual destination becomes ready when it is enabled and the state is either **idle**, **connecting-to-destination**, or **printing**.

Default Value

No default value

assign-to-destination

Indicates whether the queue assigns jobs to actual destinations as soon as they are accepted or waits until an actual destination is available.

GUI label

Preassign jobs to actual destination

Type

Resettable, single-valued

Input Synonym

You can use the synonym **assign-to-printer**.

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

Basic **true**

Advanced
false

Usage Guidelines

- When the value of **assign-to-destination** is **true**, the queue assigns jobs to an actual destination as soon as the server accepts them (early binding), unless no actual destination supports a job's required attribute values. If something

prevents the assigned actual destination from printing the job, or if another actual destination becomes available first, you must reassign the job using the InfoPrint Manager Administration GUI.

Early binding is the defining characteristic of a basic InfoPrint installation.

- When the value of **assign-to-destination** is **false**, the queue waits until a job is next to be scheduled to print, then assigns it to the first suitable actual destination to become available (late binding).

Late binding is the defining characteristic of a standard InfoPrint installation.

- A job must be assigned to an actual destination before InfoPrint can calculate the estimated completion time for the job.
- The server accepts the job even when the **actual-destinations-requested** specifies a non-existent actual destination **only when accept-unsupported-jobs is true and the print queue has assign-to-printer as false**.
- The use of early binding has performance considerations, and early binding is not intended for use in distributed environments or when many actual destinations are associated with the same queue. Therefore, if **assign-to-destination** is set to **true** and many actual destinations are associated with the same queue, job submission performance will likely suffer. In this situation, set **assign-to-destination** to **false**.

Note: When changing **assign-to-destination** from **true** to **false**, a performance improvement might not be seen until the Infoprint Server is shutdown and restarted.

associated-server

Indicates the name of the server in which this queue is located in.

GUI label

Server

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *ServerName* portion of the argument you specify when you create this queue with the **pdcreate** command.

Default Value

No default value

backlog

See **queue-backlog**.

backlog-lower-bound

Identifies the limit (time to print jobs in the queue) below which you do not consider the queue backlogged. InfoPrint resets a backlogged condition when the **queue-backlog** value is less than this value, if you enable backlog computing.

GUI label

Backlog lower bound

Type

Resettable, single-valued

Allowed Values

You can enter a value using [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Syntax

backlog-lower-bound=[HH:]MM

For example:

```
backlog-lower-bound=70  
backlog-lower-bound=1:10
```

Default Value

No default value

Usage Guidelines

- You must set the value for this attribute to less than or equal to the value you specify for the **backlog-upper-bound** attribute.
- InfoPrint sets the value for the attribute **backlogged** to **false** when the value for the **queue-backlog** attribute becomes less than this value if you enable backlog computing (**backlog-update-interval** value not equal to 0).

backlog-update-interval

Specifies how often InfoPrint computes the queue backlog.

GUI label

Backlog update interval

Type

Resettable, single-valued

Allowed Values

You can enter a value using [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Setting this value to 0 disables backlog computing.

Default Value

The greater value of:

- 1 minute
- The value of the **backlog-upper-bound** attribute divided by 30.

Usage Guidelines

- You must set the value for this attribute to be less than or equal to the value you specify for the **backlog-upper-bound** attribute.
- InfoPrint sets this default value when you create the queue. If you change the value for the **backlog-upper-bound** attribute later with the **pdset** command, InfoPrint does not change the value for this attribute.

backlog-upper-bound

Identifies the limit (time to print the jobs in the queue) above which you consider the queue backlogged.

GUI label

Backlog upper bound

Type

Resettable, single-valued

Allowed Values

You can enter a value using [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

No default value

Usage Guidelines

- You must set the value for this attribute to be greater than or equal to the value you specify for the **backlog-lower-bound** attribute.
- InfoPrint sets the value for the attribute **backlogged** to **true** when the value for the **queue-backlog** attribute exceeds this value if you enable backlog computing.

backlogged

Identifies whether the queue is backlogged.

GUI label

Backlogged

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- **true**
- **false**

Default Value

false

Usage Guidelines

- InfoPrint sets this attribute value to **true** when you enable backlog computing (**backlog-update-interval** not equal to 0) and the **queue-backlog** value exceeds the **backlog-upper-bound** value.
- InfoPrint sets this attribute value to **false** when the **queue-backlog** value falls below the **backlog-lower-bound** value.

current-backlog

See **queue-backlog**.

descriptor

Provides a description of this queue.

GUI label

Descriptor

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that describes this queue. You might want to specify such things as:

- The name of the department or the account number for the users of this queue.
- Any other information that is unique to your company or organization.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description of this queue is helpful to users who want to determine where to submit a given job or administrators who want to determine which queue to associate with a logical destination.

list-of-managers

Lists the people responsible for the configuration and operation of this queue.

Type

Resettable, multi-valued

Input Synonym

You can use this synonym **managers**.

Allowed Values

You can enter a text string up to 255 characters long, per value, that contains the name or ID of the person responsible for this queue.

Default Value

No default value

Usage Guidelines

This attribute is useful if a user needs to contact someone to report a problem or to request a change.

logical-destinations-assigned

Lists the logical destinations associated with this queue.

GUI label

Logical destinations assigned

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **logical-printers-assigned**.

Allowed Values

InfoPrint adds to this value the logical destination name of a newly created logical destination if the **associated-queue** attribute value for that logical destination identifies this queue.

Default Value

No default value

logical-destinations-ready

Lists the enabled logical destinations that can send jobs to this queue.

GUI label

Logical destinations ready

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **logical-printers-ready**.

Allowed Values

InfoPrint adds a logical destination name to this value for each logical destination that is assigned to the queue and that is enabled.

Default Value

No default value

Usage Guidelines

InfoPrint changes this value as you enable or disable logical destinations.

logical-printers-assigned

See **logical-destinations-assigned**.

logical-printers-ready

See **logical-destinations-ready**.

managers

See **list-of-managers**.

message

Provides a message associated with this queue.

GUI label

Message

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 4095 characters that contains information about this queue.

Default Value

No default value

notification-profile

Designates which persons InfoPrint notifies of specific events related to this queue, and how InfoPrint notifies them.

GUI label

Notification profile

Type

Resettable, multi-valued, complex

Syntax

```
-x "notification-profile={event-identifiers=event ...  
  delivery-address=name@node delivery-method=value  
  event-comment='some text' locale=locale}"
```

For example:

```
-x "notification-profile={event-identifiers=queue-state-changed  
  object-cleaned delivery-address=Kathy@test delivery-method=message  
  event-comment='Better check' locale=En_US.IBM-850}"
```

You can omit any of these components.

Components

- **event-identifiers**

Specifies the events for which the person receives messages.

- *GUI label*

Events

- *Type*

Multi-valued

- *Allowed Values*

You can enter queue events listed for the server **events-supported** attribute.

- *Default Value*

object-cleaned, object-deleted, queue-backlogged

- **delivery-address**

Specifies the address of the person who receives the event messages or the directory location and file name where InfoPrint stores the message.

- *GUI label*

Address

- *Type*

Single-valued

- *Allowed Values*

You can enter the login ID and node of the person who is to receive the messages or the path of the directory and a file name.

- *Default Value*
The login ID of the person who created this queue.
- *Usage Guidelines*
You must specify a value for **delivery-address** if you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for the **delivery-method** component.

- **delivery-method**

Specifies how the user receives the event messages.

- *GUI label*
Method
- *Type*
Single-valued
- *Allowed Values*

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
electronic-mail	e-mail, email
file	
file-add-to	
message	
exit	
none	
wireless	

- *Default Value*
message
- *Usage Guidelines*
If you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for this component, you must specify a value for the **delivery-address** component.

- **event-comment**

Provides textual information that InfoPrint appends to the event message.

- *GUI label*
Comment
- *Type*
Single-valued
- *Allowed Values*

You can enter a text string of up to 4095 characters that contains the information about the event.

- *Default Value*
No default value

- **locale**

Defines the language and code page of notification messages.

- *Type*
Single-valued
- *Allowed Values*

You can enter any locale for which the InfoPrint messages in the corresponding language are installed.

- *Default Value*
The locale of the person who created this queue.

notify-operator

Identifies people who are to receive the message defined by the job attribute **job-message-to-operator**.

GUI label

Operators to notify

Type

Resettable, multi-valued, complex

Input Synonym

You can use the synonym **operators**.

Syntax

delivery-method:delivery-address

Separate the components with a colon, for example:
message:op3@fastpr

Components

- **delivery-method**
Specifies how the person is to receive the messages.
 - *GUI label*
Method
 - *Type*
Single-valued
 - *Allowed Values*
You can enter one of these fixed values:
Fixed Value
Input Synonym
electronic-mail
e-mail, email
exit
message
wireless
none
 - *Default Value*
message
 - *Usage Guidelines*

- If you specify a value of **wireless** for the **delivery-method** component, you must specify a value for the **delivery-address** component of the **notify-operator** queue attribute.
- If you specify a value of **exit** for the delivery-method component, you must specify the name of the exit program to execute in the **delivery-address** component of the **notify-operator** queue attribute.
- **delivery-address**
Specifies the address of the person who receives the message.
 - *GUI label*
Address
 - *Type*
Single-valued
 - *Allowed Values*
You can enter a text string that contains the login ID and node of the person who receives the message.
 - *Default Value*
The login ID of the person who created this queue.
 - *Usage Guidelines*
 - If you specify a value of **wireless** for the **delivery-method** component, you must specify a value for the **delivery-address** component of the **notify-operator** queue attribute.
 - If you specify a value of **exit** for the delivery-method component, you must specify the name of the exit program to execute in the **delivery-address** component of the **notify-operator** queue attribute.

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **queue**.

Default Value

queue

operators

See **notify-operator**.

physical-printers-assigned

See **actual-destinations-assigned**.

physical-printers-ready

See `actual-destinations-ready`.

queue-backlog

Specifies the amount of time that this queue might be backlogged. This is a computed estimate of time it takes to print all of the jobs currently in the queue.

GUI label

Current® backlog

Type

Non-settable, single-valued

Input Synonyms

You can use the synonyms `backlog` or `current-backlog`.

Allowed Values

InfoPrint sets this value to [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

No default value

queue-name

Uniquely identifies this queue object.

GUI label

Queue

Type

Non-settable, single-valued

Allowed Values

InfoPrint set this value to the *QueueName* portion of the argument from the `pdcreate` command when this queue is created.

Default Value

No default value

Usage Guidelines

This queue name must be unique in the namespace.

queue-state

Identifies the current state of the queue.

GUI label

State

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
paused	InfoPrint will not schedule jobs in the queue to the actual destinations associated with this queue. The queue will still receive jobs from its associated logical destinations if they are enabled.
ready	InfoPrint can schedule jobs in the queue to the actual destinations associated with this queue.

Default Value

No default value

requeue-failed-jobs

Indicates whether jobs that fail to RIP, impose, or print should be replaced in the queue.

GUI label

Keep failed jobs

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- When the value of **requeue-failed-jobs** is **true**, jobs that fail to print for any of these reasons:
 - The server cancels the job.
 - InfoPrint fails to RIP the job.
 - InfoPrint fails to impose the job.are replaced in the queue in the **held** state.
- When the value of **requeue-failed-jobs** defaults to **true**, jobs can start accumulating in the Server's queues, and these jobs will require manual intervention. If you do not want jobs to accumulate in the Server's queues, you might want to change **requeue-failed-jobs** to **false**.
- When the value of **requeue-failed-jobs** is **false**, jobs that fail to print for these reasons are retained if there is a value for the **job-retain-until** or **job-retention-period** job attribute. Otherwise, these jobs are discarded.
- For any value of **requeue-failed-jobs**, jobs that fail to print because of actual destination problems are replaced in the queue in the **pending** state. If another actual destination is available, these jobs are rescheduled.

Attributes for resource contexts

InfoPrint Manager uses resource contexts to determine the location of PSF resources. Actual destination attributes, such as **resource-context**, **resource-context-font**, or **resource-context-overlay**, reference the names of resource contexts.

The different types of AFP resources are:

Data object font resources

A data object font resource can be an OpenType font collection, an OpenType set of linked fonts, or OpenType fonts that are installed in one or more directories on your InfoPrint Manager server. Data object font resources are the only fonts registered through a Resource Allocation Table that is located in the same directory as the fonts. For more information about using data object font resources with InfoPrint Manager, see "Creating and managing resource-context objects" in *InfoPrint Manager for Windows: Procedures*.

Data object resources

Data object resources are a type of AFP resource; they can be an IOCA file or a type of file natively supported by a particular model of printer (for example, an EPS file on an InfoPrint Color 130 plus). In addition, if you use the transforms that come with InfoPrint Manager to convert objects into AFP first, these non-native types of files can be used as data object resources as well. In InfoPrint Manager, data object resources are grouped with BCOCA and GOCA objects, and they are collectively known as presentation object containers.

Fonts A font is a single size and typeface in a particular type family including letters, numerals, punctuation marks, special characters, and ligatures.

Form definitions

Form definitions provide instructions on how output devices position data on the page. Form definitions can specify overlays, a paper source for cut-sheet printer devices, duplexing, text suppression, data position, and the number and modifications of pages.

Overlays

Overlays are collections of predefined data such as lines, shading, text boxes, or logos that an output device can merge with variable data on a page or a form.

Page definitions

Page definitions contain the formatting controls for line data. Page definitions can include controls for the number of lines per logical page, font selection, print direction, and the mapping of individual fields to positions on the logical page.

Page segments

Page segments contain text and images that an output device can include at any addressable point on a page or an electronic overlay.

The resource context attribute **context-address** identifies the path name of the directory that contains the corresponding PSF resource. Instead of entering the full path name as the value of an actual destination attribute, you can reference the resource context. You can also reference resource contexts during print submission using certain document attributes.

Only PSF, fax, email, and IP2000 actual destinations use resource contexts.

Initially settable attribute listing

There are no initially settable attributes for a resource context.

Resettable attribute listing

You can set these attributes with the **pdcreate** command when you create a resource context or modify them with the **pdset** command after you create the resource context.

- **context-address**
- **descriptor**

associated-server

Indicates the server in which this resource context is located in.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *ServerName* portion of the argument specified with the **pdcreate** command when this resource context is created.

Default Value

No default value

context-address

Defines the path for the location of this PSF resource.

Type

Resettable, single-valued

Allowed Values

You enter a text string up to 4095 characters long that contains the path name. Separate multiple path names with colons.

Syntax

path:path

For example:

`/fonts:/dept123/fonts`

Default Value

No default value

descriptor

Provides a description of this resource context.

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that describes this resource context.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description of the resource that this resource context references can be helpful to a users who need to determine which resource context to use.

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **resource-context**.

Default Value

resource-context

resource-context-identifier

Uniquely identifies this resource context in a server.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *ResourceContextName* portion of the argument specified with the **pdcreate** command when this resource context is created.

Default Value

No default value

Attributes for servers

An InfoPrint server is an object that represents the server that manages the validation, routing, and scheduling of jobs.

Initially settable attribute listing

There are no specifiable attributes for a server.

Resettable attribute listing

You can modify these attributes with the **pdset** command after you create a server.

- **accept-unsupported-jobs**
- **auto-create-shared-printers** (Windows only)
- **client-driver-names** (Windows only)
- **count-job-pages**
- **descriptor**
- **disallowed-list-object-classes** (AIX only)
- **forms-available**
- **job-submission-timer**
- **list-of-managers**
- **log-accounting-data**
- **lower-memory-usage-exit** (AIX only)
- **lower-memory-usage-threshold** (AIX only)
- **maximum-non-raster-rips**
- **maximum-raster-rips**
- **message**
- **notification-profile**
- **save-rip-files**

- **security-level**
- **smtp-server-host**
- **smtp-server-port**
- **snmp-discovery-during-startup**
- **snmp-normal-poll-interval**
- **snmp-problem-poll-interval**
- **transform-manager-host**
- **transform-manager-port**
- **upper-memory-usage-exit** (AIX only)
- **upper-memory-usage-threshold** (AIX only)
- **web-server-host**
- **web-server-port**

accept-unsupported-jobs

Indicates whether the server accepts jobs even when no actual destination supports the required attribute values.

GUI label

Accept unsupported jobs

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

- When the value of the **accept-unsupported-jobs** is **true**, the server accepts jobs even when no actual destination supports the required attribute values. InfoPrint holds these jobs and sets the **required-resources-not-supported** job attribute to a list of the unsupported values.
The server accepts the job even when the **actual-destinations-requested** specifies a non-existent actual destination **only when accept-unsupported-jobs** is **true** and the print queue has **assign-to-printer** as **false**.
- When the value of **accept-unsupported-jobs** is **true**, the actual destination **accept-job** attribute is ignored.
- When the value of **accept-unsupported-jobs** is **false**:
 - The server rejects jobs that require unsupported attribute values.

- The **accept-job** actual destination attribute is honored if the **assign-to-printer** queue attribute is **true**.
- If changes to job or actual destination attributes after the job has been accepted produce unsupported attribute values, InfoPrint holds the job and sets the **required-resources-not-supported** job attribute to the list of unsupported values.

actual-destinations-ready

Identifies the supported actual destinations that are ready to receive jobs from queues in this server.

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **physical-printers-ready**.

Allowed Values

InfoPrint sets this value to the names of the actual destinations that are ready to accept jobs. A actual destination name is:

- Added when actual destinations associated with queues in this server are enabled and are in the **idle**, **connecting-to-printer**, or **printing** state.
- Removed when you disable or pause an actual destination and one of these destination states (**timed-out**, **needs-attention**, or **needs-key-operator**) exists.

Default Value

No default value

actual-destinations-supported

Identifies the actual destinations that this server supports.

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **physical-printers-supported**.

Allowed Values

InfoPrint sets this value to the names of the actual destinations associated with the queues contained in this server. InfoPrint adds the destination name when an actual destination associated with queues in this server registers with this server.

Default Value

No default value

auto-create-shared-printers (Windows Only)

Indicates whether destinations created in this server that can be print submission targets should automatically create a corresponding InfoPrint gateway shared printer.

GUI label

Automatically create gateway printer

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

False

Usage Guidelines

- When the value of the **auto-create-shared-printers** is **true**, InfoPrint automatically creates a corresponding InfoPrint gateway printer with:
 - A Windows print driver with the first value in the server's **client-driver-names** attribute
 - A polling interval of 0

Note: The server accepts the job even when the **actual-destinations-requested** specifies a non-existent actual destination **only when accept-unsupported-jobs** is **true** and the print queue has **assign-to-printer** as **false**.

cancel-individual-document-supported

Indicates whether the server is capable of cancelling individual documents in a multi-document job.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **false**.

Default Value

false

client-driver-names (Windows only)

Identifies the 32-bit Windows print driver that can be used as the device driver for automatically created gateway shared printers on this server.

GUI label

Client drivers

Type

Resettable, single-valued

Input Synonyms

You can use the synonym **windows-nt-driver-names** or **nt-drivers**.

Allowed Values

You can enter a text string that contains the string form of the Windows print driver.

Default Value

No default value

Usage Guidelines

Perform this procedure to determine the valid Windows driver names:

1. Click **My Computer** from the desktop.
2. Click **Control Panel**.
3. Click **Printers**.
4. Click **Add Printer**.
5. The values listed in the **Printer:** list box in the **Add Printer Wizard** are the names of the Windows destination drivers that you can install on the workstation; for example, **4039 LaserPrinter PS**.

Note: Other destination drivers are available and might not display in the list for a particular workstation.

count-job-pages

Specifies whether the server performs job page count for every job with **rip-and-hold** or **rip-and-hold-ignore-ready** values of the **job-rip-action** job attribute on every PSF actual destination, for every incoming AFP printable job, for both, or for none. If the job page count function is enabled by specifying the **rip-and-hold** value for **count-job-pages**, InfoPrint Manager updates the **page-count** document attribute and the **job-page-count** job attribute after it rips the job.

GUI label

Count job pages

Type

Resettable, single-valued

Input Synonyms

None

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
afp-input	Do the page count for jobs that have AFP input files.
rip-and-hold	Do the page count for jobs that are assigned to a PSF actual destination in this server.
all	Do the page count for both AFP jobs and rip and hold jobs.
never	Do not do the page count.

Default Value

rip-and-hold

Usage Guidelines

This attribute affects the **job-page-count** and **page-count** attributes.

- When the job page count function is enabled, InfoPrint Manager updates the values for the **job-page-count** job attribute and the **page-count** document attribute after it rips the job.
- For AFP jobs, the job page count function does not change the **job-page-count** job attribute or the **page-count** document attribute.
- When the job page count function is enabled, the **pdpr** command that submits an AFP printable file will not return until the page count is calculated.
- The result of the page count function might not be 100% accurate, because only the begin page group (BPG) and end page group (EPG) pages are counted. For example, if you have a formdef that has multiple copy counts and uses constant back, front, or both, the page count calculated will not reflect the actual number of the printed pages.

descriptor

Provides a description of this server.

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that contains a description of this server. You might want to specify things such as:

- The purpose of the server; which users, user groups, or departments will use the objects contained in this server.

- Any other information that is unique to your company or organization.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description is useful if you have a large number of servers or if you have many people managing your network printing system.

destination-states-supported

Identifies the destination states that this server supports.

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **printer-states-supported**.

Allowed Values

InfoPrint sets this value to any of these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
connecting-to-printer	The actual destination has received a job and is trying to connect to its printer device. After it connects to the device, the actual destination locks the printer device until it finishes processing the job so that another print system cannot use the device. Note: This state applies only to AIX actual destinations and PSF other-driver attached actual destinations on InfoPrint Manager for AIX.
idle	The actual destination is waiting for a job. An actual destination can be idle even if its output device is printing a job from some other AIX process or from the AIX print-spooling subsystem; or from some other Windows application or the Windows spooler.
needs-attention	The actual destination can connect to the output device, but for some reason the output device cannot print.
needs-key-operator	This state occurs when there is a serious problem with the output device. Either the actual destination cannot connect to the output device or there is some other problem. For example, a printer device might be out of toner. InfoPrint automatically disables the actual destination when the actual destination enters this state. If the actual destination uses SNMP, InfoPrint automatically re-enables it when the problem is corrected. To prevent automatic re-enabling, manually disable the actual destination.
paused	The actual destination was paused with the pdpause command or by a job with job-start-wait=true .
printing	The actual destination is processing a job.

<i>Fixed Value</i>	<i>Explanation</i>
shutdown	The actual destination was shut down with the pdshutdown command. Note: This state applies only to PSF actual destinations.
timed-out	The actual destination received a job, but the actual destination could not connect to the printer device in the time specified by the printer-timeout-period actual destination attribute. Note: This state applies only to AIX actual destinations and PSF other-driver attached actual destinations.

Default Value

No default value

destination-support-systems-supported

Identifies the DSSs that this server supports.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets the values to identify the DSSs that are installed. The values are dynamic; InfoPrint adds and removes values based on the DSSs that are installed.

Default Value

For AIX:

<i>Fixed Value</i>	<i>Input Synonym</i>
aix	piobe
bsd	
psf	
email	
generalized fax	
IP2000	

Note: The **metacode** and **sapconnect** values are displayed only when their respective features are installed.

For Windows:

<i>Fixed Value</i>	<i>Input Synonym</i>
bsd	
psf	
IPP	
windows	passthrough

disallowed-list-object-classes (AIX only)

Contains object classes that cannot be listed at this time. The main purpose of this attribute is to prevent querying of jobs when a memory constrained situation exists. When a memory constrained situation exists, it is often caused by a large backlog of jobs and querying all of them can make the memory problem much worse and could possibly cause the server to crash if there is not enough memory to bring all the jobs into memory and build the query response.

GUI label

Queries to prevent

Type

Resettable, multi-valued

Allowed Values

Object classes that can be specified on this attribute are restricted to the fixed values associated with the **object-classes-supported** server attribute as follows:

- **auxiliary-sheet**
- **destination**
- **document**
- **initial-value-document**
- **initial-value-job**
- **job**
- **log**
- **medium**
- **queue**
- **resource-context**
- **server**

Default Value

No default value

Usage Guidelines

You usually use the **disallowed-list-object-classes** attribute to disallow listing jobs (by adding the job value) by the upper-memory-usage-exit script, and then allow it again (by removing the job value) by the lower-memory-usage-exit script.

document-attributes-supported

Identifies the document attributes that the server supports.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets these values to include all the document attributes supported by any actual destination registered with the server. These values are dynamic; InfoPrint

adds and removes values based on the values of registered actual destinations.

Default Value

- class
- copy-count
- destination-initial-value-document
- document-comment
- document-content
- document-content_list
- document-file-name
- document-format
- document-sequence-number
- document-type
- initial-value-document
- object-class
- octet-count
- page-count
- transfer-method

document-varying-attributes-supported

Identifies the document-varying attributes that this server supports

DSS

All

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets these values to include a list of varying document attributes that this server supports.

Note: This list includes only document attributes that directly affect the actual destination. Documents with attributes that affect the server, for example, **initial-value-document**, can be printed even though those attributes are not on this list.

Default Value

- document-content
- document-content-list
- document-file-name
- document-sequence-number
- document-type
- initial-value-document
- octet-count
- page-count
- transfer-method

events-supported

Lists the events that the server or the objects in the server support.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets these values to these events:

- **checkpoint-taken**
- **class-aborted**
- **class-actual-destination-attention**
- **class-actual-destination-configuration**
- **class-actual-destination-default**
- **class-actual-destination-status**
- **class-error**
- **class-job-attention**
- **class-job-default**
- **class-job-problem**
- **class-job-status**
- **class-logical-destination-attention**
- **class-logical-destination-configuration**
- **class-logical-destination-default**
- **class-logical-destination-status**
- **class-queue-attention**
- **class-queue-configuration**
- **class-queue-default**
- **class-queue-status**
- **class-report**
- **class-server-attention**
- **class-server-configuration**
- **class-server-default**
- **class-server-status**
- **class-state-changed**
- **class-warning**
- **close-to-discard-time**
- **destination-disabled**
- **destination-enabled**
- **destination-function-unavailable**
- **destination-needs-administrator**
- **destination-needs-attention**
- **destination-needs-operator**
- **destination-registered**
- **destination-shutdown-job-requeued**
- **destination-state-changed**
- **destination-timed-out**
- **destination-unregistered**
- **destinations-not-ready-for-job**

- detailed-messages
- destination-timed-out
- disk-space-low
- document-aborted-by-destination
- document-aborted-by-server
- document-cancelled-at-destination
- document-content
- file-transferred
- internal-server-error
- job-aborted-by-server
- job-assigned-to-destination
- job-assigned-to-destination-at-end
- job-assigned-to-queue
- job-cancelled-by-operator
- job-cancelled-by-user
- job-cannot-be-scheduled
- job-discarded
- job-modified
- job-paused
- job-promoted
- job-reordered
- job-requeued
- job-resubmitted
- job-resumed
- job-retained
- job-state-changed
- job-submission-not-complete
- job-unassigned
- low-on-memory
- memory-exhausted
- no-document
- no-resource
- object-cleaned
- object-created
- object-deleted
- object-modified
- object-paused
- object-resumed
- other-error
- other-warning
- out-of-disk-space
- out-of-dpf-haids
- out-of-dpf-job-numbers
- out-of-dpf-raids
- past-discard-time

- processing-started
- queue-backlogged
- queue-no-longer-backlogged
- queue-state-changed
- resource-needs-attention
- resource-needs-operator
- sapcbd-down
- sapconnectd-down
- server-shutdown-complete
- server-shutdown-started
- server-startup-complete
- server-state-changed
- unable-to-register
- unrecognized-resource

Default Value

See “Allowed Values”.

forms-available

Indicates the forms that this server can process. This list is automatically extended as jobs with new forms are received.

GUI label

Forms available

Type

Resettable

Allowed Values

You can enter a text string with a list of the available forms.

Default Value

No default value

hostname

See `server-hostname`.

i-p-address

See `server-ip-address`.

ip-address

See `server-ip-address`.

job-attributes-supported

Identifies the job attributes that this server supports.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets these values to include all the job attributes supported by any actual destination registered with the server. These values are dynamic; InfoPrint adds and removes values based on the values of registered actual destinations.

Default Value

- completion-time
- creation-time
- current-job-state
- current-page-printing
- deadline-in-jeopardy
- dss-requested
- estimated-completion-time
- estimated-processing-time
- forms
- job-client-id
- job-comment
- job-complexity
- job-copies-completed
- job-deadline-time
- job-discard-time
- job-end-message
- job-estimated-processing-time-factor
- job-finishing
- job-hold
- job-media-sheet-count
- job-message-from-administrator
- job-identifier
- job-log
- job-message-to-operator
- job-name
- job-originator
- job-owner
- job-page-count
- job-position-fixed
- job-print-after
- job-priority
- job-retain-until
- job-retention-period
- job-scheduling
- job-start-message
- job-state-reasons
- job-submission-complete
- initial-value-job
- intervening-jobs
- modification-time
- name-of-last-accessor

- **new-job-identifier**
- **number-of-documents**
- **octets-completed**
- **on-request-resources-required**
- **pages-completed**
- **physical-printers-requested**
- **previous-job-state**
- **print-checkpoint**
- **printer-initial-value-job**
- **printer-locations-requested**
- **printer-models-requested**
- **printer-name-requested**
- **printers-assigned**
- **processing-time**
- **promotion-time**
- **queue-assigned**
- **record-count**
- **results-profile**
- **required-resources-not-ready**
- **required-resources-not-supported**
- **retain-forever**
- **started-printed-time**
- **submission-time**
- **submitter-ip-address**
- **total-job-octets**
- **user-locale**
- **user-name**

job-state-reasons-supported

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets the value of this attribute to these fixed values:

<i>Fixed Value</i>	<i>Explanation</i>
aborted-by-system	The server aborted the job.
cancelled-by-operator	An operator or system administrator cancelled the job.
cancelled-by-user	The person who submitted the job cancelled the job.
completed	The job completed without any errors or warnings that InfoPrint could detect. This does not guarantee that there were no errors of any kind.
completed-successfully	The job completed without any errors or warnings.
completed-with-errors	The job completed with errors. Based on the dss-job-message-disposition actual destination attribute, the messages associated with the errors either print at the end of the job or in a message log. See iprrl_pptdjmd.dita#iprrl_pptdjmd.
deadline-in-jeopardy	The value of the estimated-completion-time attribute for the job is later than the time specified by the job-deadline-time attribute; or the time specified by the job-deadline-time attribute is past.

<i>Fixed Value</i>	<i>Explanation</i>
job-hold-set	The job is in a queue and the job-hold job attribute of the job has a true value.
job-print-after-specified	The job is in a queue and the time specified by the job-print-after job attribute has not yet occurred.
required-resource-not-ready	The job is in a queue but InfoPrint cannot schedule it because one or more of the resources required by the job (such as media, fonts, and so on) are not ready on any of the actual destinations that can accept the job. The job's required-resource-not-ready attribute identifies the resources that need to be made ready.
required-resource-not-supported	The job is in a queue but InfoPrint cannot schedule it because none of the actual destinations that can accept the job support one or more of the resources required by the job (such as media, fonts, and so on). The job's required-resource-not-supported attribute identifies the resources that are not supported.
retained-immediately	The job is not put on a queue or scheduled when it is received by the InfoPrint server. The job is immediately processed according to the values of its retention period attributes.
rip-and-hold-completed	The RIP has successfully converted the job. The job has not been scheduled because the value of the job-rip-action attribute is rip-and-hold or is rip-and-hold-ignore-ready .
rip-completed	A job with job-rip-action=rip-and-print-ignore-ready has been RIPped, but InfoPrint cannot schedule it because one or more of the resources required by the job are not ready on any of the actual destinations that can accept the job. Jobs held for this reason are released automatically when the required resources become ready.
rip-failed	The RIP failed to convert the job. Note: You will see this reason only if the job is retained or if the value of the requeue-failed-jobs queue attribute is true . When neither of these conditions is true, jobs that fail to rip are discarded.

Default Value

See "Allowed Values".

job-states-supported

Identifies the job states that this server supports.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets the value of this attribute to these fixed values:

<i>Fixed Value</i>	<i>Reason</i>
cancelled	The job submitter or an operator cancelled the job. The job-state-reasons job attribute provides the reason.

<i>Fixed Value</i>	<i>Reason</i>
held	The job is in a queue and InfoPrint cannot schedule it. Either the job-hold job attribute is set to true or the job is held for some other reason, such as resources not ready. The job-state-reasons job attribute provides the reason.
imposing	InfoPrint is arranging the job's pages so that they will print on the press sheets in the right order for final cutting, folding, and binding.
paused	The job was paused with the pdpause command.
pending	The job is in a queue and is waiting for InfoPrint to schedule and send it to an actual destination.
pre-processing	InfoPrint is creating the job.
printing	The job is printing on a PSF actual destination. The printing state is not supported by the AIX, BSD, Generalized Fax, email, or InfoPrint 2000 DSS. Jobs printing on AIX or BSD actual destinations, or sending on fax or email destinations, are in the processing state.
processing	InfoPrint has sent the job to an actual destination. The job is processing and printing on an AIX, BSD, or InfoPrint 2000 DSS actual destination, processing and sending on a generalized fax or email destination, or processing on a PSF actual destination. Depending on the output device, this can indicate that InfoPrint has sent at least one document in the job to the output device.
retained	InfoPrint has retained the job in the server after it finished printing or sending or after it was cancelled. Either the value of the job-retention-period job attribute for the job is greater than zero, or the value of the job-retain-until job attribute for the job is a future time.
ripping	InfoPrint is converting the job to raster image patterns for printing. The ripping state is supported only by the PSF, Generalized Fax, email, and InfoPrint 2000 DSS.
terminating	The job is terminating, either because it has finished processing or because it was aborted. The job-state-reasons job attribute provides the reason.
unknown	The server does not know the state of the job because it lost communication with the actual destination to which InfoPrint sent the job.

Default Value

See "Allowed Values".

job-submission-timer

Specifies the maximum time that the server will try to assemble a job before it will time out if it has not assembled all the documents.

GUI label

Job submission timeout

Type

Resettable, single-valued

Allowed Values

You can enter a value using [HH:]MM. The unit is minutes or hours and minutes, separated by a colon.

Default Value

30

Usage Guidelines

If the server has not completed the assembly of a job in the specified time, it identifies the job submission as complete and sends the job to the queue.

list-of-managers

Lists the people that are responsible for the configuration and operation of this server.

Type

Resettable, multi-valued

Input Synonym

You can use the synonym **managers**.

Allowed Values

You can enter a text string up 255 characters long, per value, that contains the name or user ID of the person responsible for this server. You might also want to include the telephone number and office location of the person.

Default Value

No default value

Usage Guidelines

This attribute is useful if a user needs to contact someone to report a problem or to request a change.

locale

Identifies the locale for this server.

GUI label

Locale

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value based on the environment variables for this server at startup time. The priority sequence to obtain the language for the locale from the environment variables is:

1. LC_ALL
2. LC_MESSAGES
3. LANG

Default Value

No default value

log-accounting-data

Defines whether the accounting logs for all associated actual destinations are activated or deactivated by default. The actual destination attribute **log-accounting-data** setting if one overrides the setting of this value for that actual destination.

GUI label

Log accounting data

Type

Resettable, single-valued

Allowed Values

You can enter one of these values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

If the value for any actual destination associated with this server is set to the default attribute value (no value), the value set for this server attribute sets the condition for that actual destination.

The accounting log for each actual destination contains these job attributes and values for each job submitted to that actual destination separated by commas:

- **actual destination name** (up to 255 characters)
- **job owner** (up to 255 characters)
- **global job-id** without *ServerName*
- **submission-time** (GMT format)

- **submission-time** (date in server's displayable locale and time zone)
- **submission-time** (time in server's displayable locale and time zone)
- **completion-time** (GMT format)
- **completion-time** (date in server's displayable locale and time zone)
- **completion-time** (time in server's displayable locale and time zone)
- **pages-completed**
- **octets-completed**
- **data stream** (first document only)
- **job name** (up to 255 characters)

logical-destinations-ready

Identifies which logical destinations in this server are ready to accept jobs.

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **logical-printers-ready**.

Allowed Values

InfoPrint sets and resets this value as administrators enable or disable logical destinations in this server.

Default Value

No default value

logical-destinations-supported

Identifies the logical destinations that this server supports.

Type

Non-settable, multi-valued

Input Synonym

You can use the synonym **logical-printers-supported**.

Allowed Values

InfoPrint sets and resets this value as administrators create or delete logical destinations in this server.

Default Value

No default value

logical-printers-ready

See `logical-destinations-ready`.

logical-printers-supported

See `logical-destinations-supported`.

lower-memory-usage-exit (AIX only)

Identifies the exit program/script to run when the server memory usage drops below the percentage defined in the `lower-memory-usage-threshold` server attribute. This program/script defines the action to take when the server recovers from a memory constrained situation.

GUI label

Lower memory usage exit

Type

Resettable, single-valued

Allowed Values

The path and name of the exit program/script to run when the server memory usage drops below the value defined with the `lower-memory-usage-threshold` server attribute.

Note: You do not need to specify the path if the program/script is located in a directory in the system's default path.

Default Value

No default value

Usage Guidelines

- The `lower-memory-usage-exit` server attribute values allow substitution of various things in the generated command to run the exit program. This way the exit program can be more sophisticated, and it can include conditional logic based on the values of passed arguments. If any of these strings are found in the exit attribute value, the specified data is substituted for it in the general command:

`%s` Server name

`%t` Threshold value (value of `lower-memory-usage-threshold` attribute)

For example, if the exit attribute has a value of `memprob %s` in server `pumbaa`, when the server invokes the memory usage exit, it passes `pumbaa` as the first argument.

- If either `lower-memory-usage-exit` or `lower-memory-usage-threshold` are empty, no lower-memory-usage-exit processing is done.

lower-memory-usage-threshold (AIX only)

Specifies the percentage of the total allowed process memory that causes the exit program identified in the **lower-memory-usage-exit** server attribute to be run. When the server memory usage drops below the percentage you specify with this attribute, the program/script identified with in the **lower-memory-usage-exit** server attribute runs.

GUI label

Lower memory usage threshold

Type

Resettable, single-valued

Allowed Values

You can enter a percentage between from 0 to 90, but this value must be less than the value specified for the **upper-memory-usage-threshold** server attribute if it is specified.

Default Value

No default value

Usage Guidelines

If either **lower-memory-usage-exit** or **lower-memory-usage-threshold** are empty, no lower-memory-usage-exit processing is done.

managers

See **list-of-managers**.

maximum-non-raster-rips

Indicates the maximum number of jobs other than TIFF, GIF, or JPEG jobs that InfoPrint can RIP at one time for printing on a PSF actual destination.

GUI label

Maximum nonraster RIPs

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

No default value

Usage Guidelines

- You can limit the number of concurrent RIPs to improve performance.
- InfoPrint reads this value the first time that a job is RIPPed after the server is started. Therefore, whenever you change this value, you must restart the server.

maximum-raster-rips

Indicates the maximum number of TIFF, GIF, and JPEG jobs that InfoPrint can RIP at one time for printing on a PSF actual destination.

GUI label

Maximum raster RIPs

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

No default value

Usage Guidelines

- You can limit the number of concurrent RIPs to improve performance.
- InfoPrint reads this value the first time that a job is RIPPed after the server is started. Therefore, whenever you change this value, you must restart the server.

message

Provides information associated with this server.

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that contains information about this server.

Default Value

No default value

modify-individual-document-supported

Indicates whether this server is capable of modifying individual documents in a multiple document job.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **true**.

Default Value

true

multiple-documents-supported

Indicates whether this server supports multiple documents in a single job.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **true**.

Default Value

true

notification-delivery-methods-supported

Identifies the methods this server supports for sending messages to the person specified to receive the messages.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to any of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
electronic-mail	e-mail, email
file	
file-add-to	
job-log	
message	
sapcb	
sapconnect	
exit	
none	
wireless	

Default Value

No default value

Usage Guidelines

- The **sapcb** notification method causes the SAP callback daemon to return messages about job events to the SAP system. It is used only for jobs submitted by SAP users.
- The **sapconnect** notification method causes the **sapconnd** daemon to return messages about job events to the SAP system. It is used only for jobs submitted by SAP users.

notification-profile

Designates which users InfoPrint notifies of specific events related to this server, and how InfoPrint notifies them.

GUI label

Notification profile

Type

Resettable, multi-valued, complex

Syntax

```
-x "notification-profile={event-identifiers=event ...  
  delivery-address=name@node delivery-method=value  
  event-comment='some text' locale=locale}"
```

For example:

```
-x "notification-profile={events-identifiers=class-server-status  
  delivery-address=Tom@master delivery-method=message  
  event-comment='Too much data' locale=En_US.IBM-850}"
```

You can omit any of these values.

Components

- **event-identifiers**

Specifies the events for which the person receives messages.

- *Type*

Multi-valued

- *Allowed Values*

You can enter any of the values listed for the **events-supported** attribute.

- *Default Value*

internal-server-error, object-cleaned, object-deleted, server-shutdown-complete, sapcbd-down, sapconnectd-down, low-on-memory, memory-exhausted, out-of-disk-space, out-of-dpf-haids, out-of-dpf-raids, out-of-dpf-job-numbers

- **delivery-address**

Specifies the address of the person who receives event messages concerning this server or the directory location and file name where InfoPrint stores messages.

- *Type*

Single-valued

- *Allowed Values*

You can enter a text string that contains the login ID and node or the path to the directory and file name.

- *Default Value*

The login ID of the user who created this server.

- *Usage Guidelines*

You must specify a value for **delivery-address** if you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for the **delivery-method** component.

- **delivery-method**

Specifies how the user receives the event messages.

- *Type*

Single-valued

- *Allowed Values*

You can enter one of these fixed values:

Fixed Value *Input Synonym*

electronic-mail **e-mail, email**

file

file-add-to

message

exit

none

wireless

- *Default Value*

message

- *Usage Guidelines*

If you specify a value of **file**, **file-add-to**, **exit**, or **wireless** for this component, you must specify a value for the **delivery-address** component.

- **event-comment**

Provides information that InfoPrint prepends to the event message.

- *Type*

Single-valued

- *Allowed Values*

You can enter a text string up to 4095 characters long that contains the comment.

- *Default Value*

No default value

- **locale**

Defines the language and code page of notification messages.

- *Type*

Single-valued

- *Allowed Values*
You can enter any locale for which the InfoPrint messages in the corresponding language are installed.
- *Default Value*
The locale of the person who created this server.

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **server**.

Default Value

server

object-classes-supported

Lists the object classes that this server supports.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to these fixed values:

- **auxiliary-sheet**
- **destination**
- **document**
- **initial-value-document**
- **initial-value-job**
- **job**
- **log**
- **medium**
- **queue**
- **resource-context**
- **server**
- **transform**

Default Value

See “Allowed Values”.

physical-printers-ready

See **actual-destinations-ready**.

physical-printers-supported

See `actual-destinations-supported`.

printer-states-supported

See `destination-states-supported`.

problem-child

Indicates whether one of the objects that this server manages has a problem.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- `true`
- `false`

Default Value

No default value

Usage Guidelines

The InfoPrint Manager Administration GUI uses this attribute value to determine the problem status of this server.

queues-supported

Identifies the queues contained in this server.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets and resets this value when you create or delete queues.

Default Value

No default value

save-rip-files

Indicates whether this server saves the output files from jobs converted to raster image patterns.

GUI label

Save ripped files

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

Basic true

**Advanced
false**

Usage Guidelines

- If you move a RIPped job from a server with **save-rip-files=true** to one with **save-rip-files=false**, the new server keeps the RIP files only until the job is printed, then discards them.
- RIPped files are saved in the directory specified by the **PDBASE** environment variable or in one of its subdirectories. No single user can create a file larger than the amount of free space in the file system containing this directory. If many users are submitting RIPped jobs, the directory might fill up and prevent all users from successfully RIPping files.
- To print large files that are greater than 2 GB, set **save-rip-files=false**. If you set **save-rip-files=true**, the RIPped files greater than 2 GB will fail.

security-level

Identifies the security level for this server.

GUI label

Security level

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

none No security checking is performed.

low Uses standard access control list and group security checking.

Default Value

low

server-hostname

Identifies the host processor on which this server is running.

Type

Non-settable, single-valued

Input Synonym

You can use the synonym **hostname**.

Syntax

node.node.node

For example:

`boxer.denver.gym`

Allowed Values

InfoPrint sets this value to the host name of the processor where this server was created.

Default Value

The host name of the processor where this server was created.

server-ip-address

Identifies the Internet Address of the host processor on which this server is running.

Type

Non-settable, single-valued

Input Synonyms

You can use the synonym **ip-address** or **i-p-address**.

Allowed Values

InfoPrint sets this value to the IP address of the host on which this server was created. The value is in the format of integers in series in the range of 0 to 255. A period, `.`, separates each integer from the others in the format

`nn.nn.nn.nn`

For example:

`9.99.9.143`

Default Value

The IP address of the host on which this server was created.

server-name

Uniquely identifies this server.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the name you enter when you create this server.

Default Value

No default value

server-state

Identifies the current state of this server.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to one of these fixed values:

- **initializing**
- **ready**
- **terminating**
- **unavailable**

Default Value

No default value

smtp-server-host

Identifies the Domain Name System (DNS) hostname or Internet Protocol address of the system where the Simple Mail Transfer Protocol (SMTP) server or gateway is running. This server or gateway is used for email notification for a Windows InfoPrint Manager Server; and it is also used by the email DSS on an AIX InfoPrint Manager Server.

GUI label

SMTP server

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that is either of these types of addresses:

Dotted decimal address

A series of integers in the range of 0 to 255, each separated by a period, . (decimal address). For example:

9.99.12.85

Hostname

For example:

leo.infoprint.com

Default Value

localhost

Usage Guidelines

With InfoPrint Manager for Windows, you must enter a value to receive notifications through the **electronic-mail** notification delivery method.

Note: Select client notifications use the **electronic-mail** notification delivery method.

smtp-server-port

Identifies the port number on which the Simple Mail Transfer Protocol (SMTP) server is listening. This server or gateway is used for email notification for a Windows InfoPrint Manager Server; and it is also used by the email DSS on an AIX InfoPrint Manager Server.

GUI label

SMTP port

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647, but you typically enter an integer from 5001 to 65535.

Default Value

25

Note: This is the Internet Assigned Numbers Authority (IANA) reserved port number for SMTP.

Usage Guidelines

With InfoPrint Manager for Windows, you must enter a value to receive notifications through the **electronic-mail** notification delivery method.

Note: Select client notifications use the **electronic-mail** notification delivery method.

snmp-aix-printer-models

Identifies the SNMP descriptive printer model names that the AIX DSS recognizes.

GUI label

AIX printer models

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to a list of recognized SNMP printer models.

Default Value

A list of recognized SNMP printer models.

snmp-discovery-during-startup

Specifies that during startup, the server should issue an SNMP query for each SNMP printer to obtain the most up-to-date status.

GUI label

Discover printers at startup

Type

Resettable, single-valued

Allowed Values

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- When **SNMP-discovery-during startup** is **true**, the SNMP queries can cause long startup times, especially when there are lots of SNMP printers and a significant number of them are powered off or disconnected.
- When **SNMP-discovery-during startup** is **false**, the server bypasses the initial SNMP queries, and the SNMP printers show whatever their status was when the server was shutdown the last time. When set to **false**, the printer status becomes up-to-date over time as the SNMP polling loop runs.

snmp-normal-poll-interval

Indicates the number of seconds that the server should wait after sequentially polling all the SNMP printers **without** known problems. Increasing the polling interval causes the server to use less CPU and network resources for SNMP polling, but it makes the currently shown printer status (for printers that are not currently printing) less accurate. The field on the SNMP tab is “Normal poll interval”.

GUI label

Normal poll interval (sec)

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

300

Usage Guidelines

- When normal polling finds that an output device has a problem, InfoPrint disables the actual destination if necessary and transfers the device to the list of devices to be polled at the problem interval.
- Output devices with which the server has not established, or has lost, SNMP communication, are polled at the normal interval, not the problem interval.
- Set a value of 0 to disable normal polling.

snmp-problem-poll-interval

Indicates the number of seconds that the server should wait after sequentially polling all the SNMP printers **with** known problems. Increasing the polling interval causes the server to use less CPU and network resources for SNMP polling, but it makes the currently shown printer status (for printers that are not currently printing) less accurate. The field on the SNMP tab is “Problem poll interval”.

GUI label

Problem poll interval (sec)

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 0 through 2147483647.

Default Value

60

Usage Guidelines

- When problem polling finds that an output device no longer has a problem, InfoPrint re-enables the actual destination if necessary and transfers the device to the list of devices to be polled at the normal interval. To prevent InfoPrint from re-enabling the actual destination, manually disable it.
- Output devices with which the server has not established, or has lost, SNMP communication, are polled at the normal interval, not the problem interval.
- Set a value of 0 to disable problem polling.

transfer-methods-supported

Identifies the transfer methods that this server supports.

Type

Non-settable, multi-valued

Allowed Values

InfoPrint sets this value to any of these fixed values:

- `pipe-pull`
- `with-request`

Default Value

`pipe-pull, with-request`

Usage Guidelines

InfoPrint compares the document attribute **transfer-method** to this attribute for validation.

transform-manager-host

Identifies the Domain Name System (DNS) hostname or Internet Protocol address of the system where the Transform Manager is running.

GUI label

Transform manager host

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that is either of these types of addresses:

Dotted decimal address

A series of integers in the range of 0 to 255, each separated by a period, . (decimal address). For example:

9.99.12.85

Hostname

For example:

leo.infoprint.com

Note: To list the host or print server on the Transform Manager user interface page, you should not specify this attribute.

Default Value

No default value.

transform-manager-port

Identifies the port number on which the Transform Manager is listening.

GUI label

Transform Manager port

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647, but you typically enter an integer from 5001 to 65535.

Note: To list the port on the Transform Manager user interface page, you should not specify this attribute.

Default Value

Port number 6986.

upper-memory-usage-exit (AIX only)

Identifies the exit program/script to run when the server memory usage passes above the percentage defined in the **upper-memory-usage-threshold** server attribute. This program/script defines the action to take when the server encounters a memory constrained situation.

GUI label

Upper memory usage exit

Type

Resettable, single-valued

Allowed Values

The path and name of the exit program/script to run when the server memory usage passes above the value defined with the **upper-memory-usage-threshold** server attribute.

Note: You do not need to specify the path if the program/script is located in a directory in the system's default path.

Default Value

No default value.

Usage Guidelines

- The **upper-memory-usage-exit** server attribute values allow substitution of various things in the generated command to run the exit program. This way the exit program can be more sophisticated, and it can include conditional logic based on the values of passed arguments. If any of these strings are found in the exit attribute value, the specified data is substituted for it in the general command:

%s Server name

%t Threshold value (value of **upper-memory-usage-threshold** attribute)

For example, if the exit attribute has a value of **memprob %s** in server **pumbaa**, when the server invokes the memory usage exit, it passes **pumbaa** as the first argument.

- If either **upper-memory-usage-exit** or **upper-memory-usage-threshold** are empty, no upper-memory-usage-exit processing is done.

upper-memory-usage-threshold (AIX only)

Specifies the percentage of the total allowed process memory that causes the exit program identified in the **upper-memory-usage-exit** attribute to be run. When the server memory usage rises above the percentage you specify with this attribute, the program/script identified with in the **upper-memory-usage-exit** server attribute runs.

GUI label

Upper memory usage threshold

Type

Resettable, single-valued

Allowed Values

You can enter a percentage between from 0 to 90, but this value must be greater than the value specified for **lower-memory-usage-threshold** attribute if it is specified.

Default Value

No default value.

Usage Guidelines

If either **upper-memory-usage-exit** or **upper-memory-usage-threshold** are empty, no upper-memory-usage-exit processing is done.

web-server-host

Identifies the Domain Name System (DNS) hostname or Internet Protocol address of the system where the InfoPrint Manager Web Server is running.

GUI label

Web server

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that is either of these types of addresses:

Dotted decimal address

A series of integers in the range of 0 to 255, each separated by a period, . (decimal address). For example:

9.99.12.85

Hostname

For example:

leo.infoprint.com

Default Value

localhost

web-server-port

Identifies the port number on which the InfoPrint Manager Web server is listening.

GUI label

Web server port

Type

Resettable, single-valued

Allowed Values

You can enter an integer from 1 through 2147483647, but you typically enter an integer from 5001 to 65535.

Default Value

If the **web-server-host** specifies **localhost**, set from `/etc/services` for InfoPrint Manager for AIX or from `%SystemRoot%\system32\drivers\etc\services` for InfoPrint Manager for Windows.

If an entry for the InfoPrint Manager Web Server is not set, the **web-server-port** will not be set.

Attributes for transforms

InfoPrint uses transform objects to indicate how specific document formats sent to an associated actual destination are to be transformed before printing or storing.

InfoPrint Manager for Windows includes a file called **xfmfltr.out** that contains information about the commands executed by a Configurable Transform Subsystem transform. This information can be helpful for troubleshooting transforms that are failing. The file can be found in Workspace Path defined in the InfoPrint Manager Management Console under **Edit**→**Service Configuration**...

Initially settable attribute listing

There are no initially settable attributes for transforms.

Resettable attribute listing

You can set these attributes with the **pdcreate** command when you create a transform or modify them with the **pdset** command after you create the transform. You can also erase a transform with the **pddelete** command or list selectable attribute values for a transform with the **pdlis** command.

- **conditional-terminating-return-code**
- **descriptor**
- **document-formats-supported**
- **other-transform-options**
- **output-document-format**
- **server-locale**
- **terminating-transform**

associated-server

Indicates the name of the server where this transform is located in.

GUI label

Server

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value when you create a transform for a given server. InfoPrint assigns the *ServerName* portion of the argument from the **pdcreate** command used to create this transform object.

Default Value

No default value

conditional-terminating-return-code

Specifies a return code that indicates the transform was successful, but the transform will not be returning data for further processing by InfoPrint Manager. InfoPrint Manager behaves the same as if the transform had been defined to be a terminating transform and a successful return code was returned.

GUI label

Conditional terminating return code

Type

Resettable, single-valued

Allowed Values

You can enter a value from 1 through 2147483647; however, the value might be limited by operating system.

Default Value

No default value

descriptor

Provides a description of this transform.

GUI label

Description

Type

Resettable, single-valued

Allowed Values

You can enter a text string up to 4095 characters long that describes this transform.

Default Value

No default value

Usage Guidelines

The use of this attribute is optional. However, a detailed description of the transform that this references can be helpful to a users who need to determine which transform to use.

document-formats-supported

Identifies the document formats that this transform supports.

GUI label

Document formats allowed

Type

Resettable, multi-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
ascii	
dbcs-ascii	
ditroff	
dpf-ipds	
d630	
epson	
gif	
hpgl	hp-gl
iso-6429	
jpeg	
kgf	
line-data	
modca-p	afpds
passthru	
pcl	hppcl, hp-pcl
pdf	
postscript	ps
ppds	
ppml	
sap	
sap-abap	
simple-text	text
tiff	
xml	

Default Value

ASCII, MODCA-P (AFPDS), PCL, PostScript

Usage Guidelines

- When a document's format is not supported, the document bypasses the transform.
- If you associate a transform with an actual destination that does not support the document format, a document with that format will not be sent to that actual destination, and therefore, will not reach the transform.

object-class

Identifies the object class to which this object belongs.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to **transform**.

Default Value

transform

other-transform-options

Specifies the command line that executes when this transform is run.

GUI label

Transform options

Type

Resettable, single-valued

Allowed Values

You can enter a text string of up to 255 characters that contains the command line for this transform.

Default Value

No default value

Usage Guidelines

- You should not use the **pdset** command with the **other-transform-options** transform attribute.

- For **transform-library=command-line-transform**, this attribute contains the command line that specifies the transform. The supported substitution control sequences that can be used in **other-transform-options** follow:

- %i** The name of the input-file to transform.
- %o** The name of the file in which to store the output transform.
- %e** The name of the file in which to store any transform information or error messages. If anything is written to this file, it is logged in the InfoPrint Manager for AIX server log.

Notes:

1. If the transform exits with an exit code of 0 or the value set in the **conditional-terminating-return-code** transform attribute, the error messages from the transform are logged as **debug** severity.
2. If the transform exits with a non-zero exit code, but not the value set with the **conditional-terminating-return-code** transform attribute, the error messages from the transform are logged as **error** severity.
3. Transform error messages can be written to the file specified through the **%e** substitution variable, or they can be written to standard error (**stderr**). You should not mix output to **%e** and **stderr** in a single run of the exit program. You should use one or the other in any given run.

- %j** The name of the original print file name, minus the path (from **document-file-name** attribute).

Note: This file might not be accessible. This should only be used to construct another name, for example, for a temporary file.

- %n** The name of the original print file name, minus the path and minus the extension (from **document-file-name** attribute).

Note: This file might not be accessible. This should only be used to construct another name, for example, for a temporary file.

- %d** A string representing the document-format of the input file:

ascii ASCII
afpds AFPDS
pcl PCL
postscript
 PS

Note: You can also use **%%Ddocument-format%%** to pass the document format value from the document.

- %p** The value of the **destination-pass-through** document attribute from the document. The value can be used as job specific information that can be passed to the transform and the actual destination.

- %q** The name of the actual destination that is doing this transform.

- %s** The **document-sequence-number** for the document.

- %t** The **other-transform-options** for the document.

To write one transform, but use it differently for different jobs, you can pass values into the transform with this parameter.

- %g** The global job identifier for the job.
- %u** The name of the file to be used to update the job's **pages-completed** and the document's **page-count** attributes. Updating the document's **page-count** changes the job's **job-page-count** attribute.

Note: This file should never be accessed directly; only the **transform_update** utility should be used to modify this file. For more information about the **transform_update** utility, see "Using the transform_update utility" in the appropriate InfoPrint Manager procedures manual.

- %#** The 10-digit job-identifier of the job.
- %%Jattribute-name**
Passes the job attribute value from the job containing the document being transformed.
- %%Dattribute-name**
Passes the document attribute value from the document being transformed.
- %%Aattribute-name**
Passes the actual destination attribute value from the actual destination processing the job.

Considerations when using the %%Nattributename substitution control sequences:

- InfoPrint Manager accepts standard abbreviations for the attribute name, as long as they are not ambiguous. For example, you can enter **res-prof** for **results-profile**. When ambiguous text is used, it is passed to the transform as entered.
- The %%Nattributename substitution control sequences must be followed by a blank or %%.
- You can put quotes around the single percent values (for example, '%u'), but you should never put quotes around the double-percent values, such as %%A.
- Values with spaces are enquoted so they pass as a single argument. You should not enquote %%substitution%% controls.
- Multiple value attributes return all values separated by commas.
- If no attribute exists for the object, a null value is passed to the transform. No checking is done if there is an object class attribute mismatch. For example, if you ask for an actual destination attribute from a job, you get a null value.
- If no value exists on a requested attribute, a null value is passed to the transform.
- The attribute specified in the %%substitution control sequence can be specified in English or the language of the pdserver. A new transform attribute, **server-locale** specifies whether to use the pdserver's language or to use English. **server-locale** defaults to the language of the pdserver. The same language will be used for values passed to the transform.
- The identification of the end of the attribute name is done based on the occurrence of a blank, end-of-line, or % character. If the class identification is missing after the starting %, the substitution request will not be recognized as a %%Nattributename substitution request with the result that the last % in the ending %% might be misinterpreted as the start of another substitution sequence depending on the next character.

- The command line that you specify with **other-transform-options** can run in an AIX shell script. Therefore, make sure that shell meta-characters are *escaped*, that is, preceded by one or more backslashes, so that the resulting attribute value can be correctly parsed by the shell script.

- **Pragma statements with other-transform-options:**

The **other-transform-options** attribute can now have a value which includes an equals sign, so **pragma** statements are supported. For example, to submit a color print job called PS.doc to a printer called color_printer using perceptual color rendering, you could type this command on the command line:

```
pdpr -d color_printer -x "other-transform-options = -pragma
color-rendering-intent=perceptual" PS.doc
```

This pragma can also be used on a command line invocation of a transform or it can be specified in the transform configuration file.

- **Examples for other-transform-options:**

Use these examples on the command line:

- To run the **ps2afp** transform and print the generated AFP data, you would specify a one-step transform sequence consisting of a transform object as follows:

```
other-transform-options="ps2afp -o '%o' '%i'"
```

- To run the **ps2afp** transform and also save a copy of the generated AFP data in "c:\afp*.afp", you could create a transform sequence consisting of two transform objects as follows:

1. This step does the PostScript to AFP transform and stores the output in the designated output file, which becomes the input file for step 2:

```
other-transform-options="ps2afp -o '%o' '%i'"
```

2. This step copies the AFP file from step 1. However, in this example, nothing is put in the %o file, so the %i file (the transformed AFP) is passed through to the DSS for printing.

```
other-transform-options="copy '%i' 'c:\afp\%n.afp'"
```

- To run a customized program that removes PostScript controls that might create a problem at the printer, you would use a one-step transform sequence consisting of a transform object as follows:

```
other-transform-options="d:\tools\my_ps_filter.exe '%i' '%o'"
```

- To run Fred's mytransform and pass it the **document-sequence-number**, the global jobID, and the document **other-transform-options**, specify:

```
other-transform-options='/home/fred/mytransform %i %o %s %g %t'
```

- To run Sally's mywork transform and pass it the actual destination's resource-context value and the job's job owner, specify:

```
other-transform-options='/home/sally/mywork %i %o %%Aresource-context %%Jjob-owner'
```

- **For AIX:**

The InfoPrint Manager server runs as a setuid program. When setuid programs are started, AIX clears the LIBPATH variable for security reasons. Therefore, transform programs that are run under the transform Subsystem of InfoPrint Manager must either be built not to depend on LIBPATH or to explicitly set LIBPATH themselves.

output-document-format

Identifies the format of the output file generated by the transform specified in **other-transform-options**. This is a required attribute.

GUI label

Format of output file

Type

Resettable, single-valued

Allowed Values

You can enter any of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
ascii	
dbcs-ascii	
ditroff	
dpf-ipds	
d630	
epson	
gif	
hpgl	hp-gl
iso-6429	
jpeg	
kgl	
line-data	
modca-p	afpds
passthru	
pcl	hppcl, hp-pcl
pdf	
postscript	ps
ppds	
ppml	
sap	
sap-abap	
simple-text	text
tiff	
xml	

Default Value

No default value

server-locale

Indicates whether to use the server's locale or English for input and output of information defined on transform %% options.

GUI label

Use server locale

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

true

Usage Guidelines

- When **server-locale** is set to **true**, the attributes specified on the %% options must be in the language of the server. The values passed to the transform will also be in the language of the server.
- When **server-locale** is set to **false**, the attributes specified on the %% options must be in English. The values passed to the transform will also be in English.

terminating-transform

Indicates whether this is a terminating transform.

GUI label

How to process jobs

Type

Resettable, single-valued

Allowed Values

You can enter one of these fixed values:

<i>Fixed Value</i>	<i>Input Synonym</i>
true	yes
false	no

Default Value

false

Usage Guidelines

When you specify **true** for **terminating-transform**, InfoPrint Manager for AIX ends the transform sequence and marks the job complete without printing through the DSS backend.

When you are using a sequence of transforms, specify **false** as the value for **terminating-transform** to continue processing transforms that follow. The last

transform in the sequence can be **true** when you want it to terminate without printing and **false** when you want it to print through the defined actual destination.

A terminating transform can be used to create an actual destination that only performs a transform and then stores/forwards the transformed data without ever printing it to an output device.

Since the DSS is never actually executed, a terminating transform can be associated with any type of DSS. You should associate a terminating transform with a BSD DSS destination to minimize unnecessary overhead, such as creating files, ports, and so on. When defining a BSD DSS destination for use with a terminating transform, you should not use a valid IP address or a valid command when creating the BSD DSS destination, which not only minimizes overhead, but also logs errors if it tries to print a file.

Because a terminating transform does not provide output to the next step, it is meaningless to specify the **job-rip-action** job attribute with a value of **rip-and-hold**.

Examples for terminating-transform

- For example, a BSD DSS destination could be created and associated with a transform that runs **ps2afp** and stores the resulting AFP file in a library.
- As another example, you could also use a BSD DSS destination fed by one queue and associated with a transform that runs **ps2afp** and then sends (with a **pdpr** command) the resulting AFP file to a logical destination that sends the file to a printer. This example gives you a way to do *pre-pool* transforms.

transform-identifier

Uniquely identifies this transform.

Type

Non-settable, single-valued

Allowed Values

InfoPrint sets this value to the *SimpleName* portion of the argument specified with the **pdcreate** command when this transform is created.

Default Value

No default value

transform-library

Identifies the name of the DLL/Shared library that implements this transform.

Type

Settable, single-valued

Allowed Values

command-line-transform

Default Value

command-line-transform

Chapter 4. InfoPrint environment variables

Table 18, Table 19 on page 976, Table 20 on page 977, and Table 21 on page 978 describe the environment variables that affect how InfoPrint processes commands and utilities.

Table 18. InfoPrint environment variables defaulted or set for InfoPrint Manager for AIX and InfoPrint Manager for Windows

Variable	Description
PATH	<p>With InfoPrint Manager for AIX, the directories that AIX searches for command files. Separate multiple directories by a colon, : .</p> <p>Commands: All</p> <p>Default: <code>\$PATH:/usr/lpp/pd/bin:/usr/lpp/psf/bin</code>, where <code>\$PATH</code> is the value when InfoPrint is installed</p> <p>With InfoPrint Manager for Windows, the directories that Windows searches for command files. Separate multiple directories by a semicolon, ; .</p> <p>Commands: All</p> <p>Default: <code>%PATH%:install_path\pd\bin;install_path\psf\bin</code>, where <code>%PATH%</code> is the value when InfoPrint is installed</p>
PDHOST	Identifies the host clients use to sent request to InfoPrint Manager.
PDIDTABLE	Defines the upper limit (boundary) of local job identifiers that InfoPrint can assign for each user before wrapping to 1. The maximum valid integer is 32767. If you do not set a value, InfoPrint uses 100 as the upper limit. Setting the value to a lower value decreases memory usage but increases the chances of duplicate local job identifiers. Setting the value to 0 disables the mapping function; all local IDs will be set to 0 and you cannot reference jobs by the local IDs.
PDNOTIFY	<p>With the InfoPrint Select client:</p> <ul style="list-style-type: none"> • When PDNOTIFY is set to any value, the InfoPrint Select client will not create a notification-profile for the jobs it sends to the InfoPrint Manager Server. • When PDNOTIFY is not set to any value, the InfoPrint Select client creates a notification-profile for the jobs it sends to the InfoPrint Manager Server.
PDPATH	<p>A path of directories that InfoPrint searches for the file name specified by the <code>-X attributes file name</code> flag. Separate multiple directories by a colon, : . If the PDPATH environment variable does not exist, InfoPrint uses the current working directory of the person submitting the command.</p> <p>Commands: All</p>
PDPRINTER	<p>Used as the default logical destination when you do not specify the <code>-d DestinationName</code>, the <code>-p DestinationName</code> flag, or the destination-name-requested job attribute.</p> <p>Commands: <code>pdl</code>s, <code>pdq</code>, <code>pdpr</code></p> <p>InfoPrint also uses this variable to identify the server for other commands.</p>

Table 18. InfoPrint environment variables defaulted or set for InfoPrint Manager for AIX and InfoPrint Manager for Windows (continued)

<i>Variable</i>	<i>Description</i>
PD_CONFIRM_DELETE	Specifies whether InfoPrint issues a confirmation message before deleting an object. Commands: pdclean, pddelete, pdrm Values: yes, no Default: yes
PD_ENABLE_TIMEOUT	Specifies the number of seconds that a server waits for an actual destination to register when the actual destination is enabled. Default: 15
PD_LISTEN_COUNT	Specifies the number of simultaneous requests that a server can process. If this number is exceeded, the server issues an error message. Default: 10
PD_SOCKET	Identifies the port number used by the InfoPrint communications daemon. It also identifies the port number clients use to send requests to the Infoprint Server. Internet services reserve socket numbers up to 255. Other non-InfoPrint services reserve socket numbers in the range 256 through 1023. To determine the socket numbers already reserved before assigning a socket number to an InfoPrint communications daemon, look at the contents of the <i>/etc/services</i> file. Default: 6874 Note: On Windows, if you use the MMC Server Configuration window to change the client interface port number, InfoPrint Manager will set the PD_SOCKET variable as the port number.
PSFDBLANG	The language and code page used by the db2afp transform program. Values: j (Japanese, code page 943), c (Traditional Chinese, code page 950), je (Japanese EUC), ce (Traditional Chinese EUC), ke (Korean EUC)
PSFPATH	A path of directories that InfoPrint searches for print resources (fonts, form definitions, overlays, page definitions, and page segments). Separate multiple directories by a colon, : .

Table 19. InfoPrint environment variables can be defaulted or set for InfoPrint Manager for AIX

<i>Variable</i>	<i>Description</i>
GIF2AFP_option	Specifies options for the GIF2AFP transform command. See “gif2afp command: transforms GIF data to AFP” on page 275.
IPR_PREDPROD	Used during migration to specify the product that preceded InfoPrint. Value: PSF (PSF for AIX)
JPEG2AFP_option	Specifies options for the JPEG2AFP transform command. See “jpeg2afp command: transforms JPEG data to AFP” on page 305.
MANPATH	A path of directories that AIX searches for man pages. Separate multiple directories by a colon, : . Commands: man

Table 19. InfoPrint environment variables can be defaulted or set for InfoPrint Manager for AIX (continued)

Variable	Description
PDBASE	Specifies the root directory where the InfoPrint server stores all of its working files, such as log or trace files. Each server has its own subdirectory under this directory to avoid name conflicts when multiple servers are on the same AIX processor. Utilities: start_server, startsrv Default: /var/pd
PD_MAX_PIPES	Overrides the Infoprint Server's default starting number of named pipes (512). This only applies to the pdserver starting point for pipes. Note: Setting this value high can effect the startup and shutdown time for the pdserver. This variable also affects the SAP Callback daemon and the Notification Server. Both of these are allocated ten named pipes by default and do not need more. Be careful not to increase the number of named pipes these processes obtain.
PDNAMESEP	Specifies the namespace. Commands: All Default: /var/pddir/default_cell
PD_SAVE_TRACE	Specifies that InfoPrint Manager renames and compresses the trace.log.BAK file when a server or an SAP Callback daemon is restarted. See "log-backup-number" on page 864 for other ways to save additional trace logs.
PD_SUBMITTER_IP_ADDRESS_FORMAT	Adds the client-ip-address in dotted decimal format to the job-owner information stored in the server's accounting log for any remote print request submitted through the pdservers started with this environment variable set to <i>IPADDR</i> . Remote print requests do not include requests that go through a receiver, such as IPP Gateway or MVS Download, before being submitted to the InfoPrint Manager Server.
PPO_DEFAULT_ENV	The fully qualified name of the InfoPrint SMIT operator's interface environment file, which contains a shell script that defines all other InfoPrint SMIT operator's interface environment variables. Default: /usr/lpp/pd/bin/ppo.env
TIFF2AFP_option	Specifies options for the TIFF2AFP transform command. See "tiff2afp command: transforms TIFF data to AFP" on page 433.
TYPESETTER	Determines how troff files are processed for printing. Values: afp, hplj, psc
XBMLANGPATH	A path of directories that AIX searches for the icons used by graphical user interfaces. Separate multiple directories by a colon, : .

Table 20. InfoPrint environment variables set in the InfoPrint SMIT Operator's Interface environment file for InfoPrint Manager for AIX

Variable	Description
PPO_CANCEL_ALL_OPTION	Specifies whether operators have the option of cancelling all jobs. Values: 0 (no), 1 (yes) Default: 1 (yes)
PPO_FORM	The list of forms (media) that your printing operation can use. Separate form names by blanks.

Table 20. InfoPrint environment variables set in the InfoPrint SMIT Operator's Interface environment file for InfoPrint Manager for AIX (continued)

<i>Variable</i>	<i>Description</i>
PPO_JOB_BATCH	The list of job batches that your printing operation can use. Separate job batch names by blanks.
PPO_JOB_DETAILS_ATTRS	The job and document attributes that are displayed in the InfoPrint SMIT operator's interface job status window. Separate attribute names by commas.
PPO_LP	The name of the default logical destination to which the InfoPrint SMIT operator's interface resubmits print jobs.
PPO_LPS	The names of logical destinations that are available for job submission. Separate logical destination names by blanks.
PPO_PP_ATTRS	The actual destination attributes that are displayed in the InfoPrint SMIT operator's interface destination status window. Separate attribute names by commas.
PPO_PPS	The names of the actual destinations that the InfoPrint SMIT operator's interface manages. Separate actual destination names by blanks.
PPO_QUEUE	The name of the queue that the InfoPrint SMIT operator's interface manages.
PPO_QUEUE_ATTRS	The queue attributes that are displayed in the InfoPrint SMIT operator's interface queue status window. Separate attribute names by commas.
PPO_QUEUE_INFO_FILE	In installations that use multiple queues, the name of the file that maps queues to their environment files.
PPO_SERVER	The name of the server that the InfoPrint SMIT operator's interface manages.
PPO_TRACE_FILE	The name of the file containing trace records for the InfoPrint SMIT operator's interface. Use this environment variable only under the direction of InfoPrint Solutions Company service.

Table 21. AIX language environment variables

<i>Variable</i>	<i>Description</i>
LANG	The name of the locale to use for locale categories when neither LC_ALL nor the corresponding environment variable beginning with LC_ specifies a locale. Used to determine the language, territory, or character set of messages and other information that InfoPrint sends to a person. Commands: All
LC_ALL	The name of the locale used to override any values for locale categories specified by the setting of LANG or any environment variables beginning with LC_. Commands: All
LC_CTYPE	The name of the locale for character classification. Commands: All
LC_MONETARY	The name of the locale containing monetary-related numeric editing information. Commands: All

Table 21. AIX language environment variables (continued)

Variable	Description
LC_NUMERIC	The name of the locale containing numeric editing, such as radix and character information. Commands: All
LC_TIME	The name of the locale for date and time formatting information. Commands: All
LC_MESSAGES	The name of the locale for STDERR messaging. Commands: All
NLSPATH	A path of directories that AIX searches for locale-dependent files. Separate multiple directories by a colon, : .
PD_LANG	Lets you input English and still receive results in your language. If you set PD_LANG=en_US and you are running in German (de_DE), you could enter <code>pdls -c destination</code> or <code>-r brief servername</code> , and the results are displayed in German.

Querying environment variables

You can use the **echo** command to query the value of an environment variable. For example, to determine the default logical destination, enter:

```
echo $PPRINTER
```

To query all environment variables that have values set, enter:

```
env
```

Setting environment variables

You can use the **export** command to set environment variables:

- If you are an administrator, in an environment file.
 - You can set AIX environment variables and many InfoPrint environment variables in the **/etc/environment** file.
 - You can set some InfoPrint environment variables that affect the InfoPrint SMIT operator's interface in the InfoPrint SMIT operator's interface environment file. The **PPO_DEFAULT_ENV** environment variable defines the name of this file.

Settings in the environment files apply to all sessions for all users, unless a user resets the environment variables in the **.profile** file or on the command line.

Note: These settings do not apply to processes that are already running when you edit the file. For example, a server is a process. To make your changes effective, stop and restart the server.

- In the **.profile** file in your home directory. Settings in the **.profile** file override settings in the **/etc/environment** file and the InfoPrint SMIT operator's interface environment file. These settings apply only to you and are in effect for all your AIX sessions, unless you reset the environment variables on the command line.

- On the command line for a single AIX session. Command line settings override settings in the `/etc/environment` file, the InfoPrint SMIT operator's interface environment file, and your `.profile` file. These settings apply only to you and are in effect only until you exit the session.

In a file

To set an environment variable in a file, you need to edit the file with an editor. If you do not know how to use an editor, or the editor you are using is not capable of saving in the plain text (ASCII) file format, do not start. Ask your administrator for assistance.

These example shows how to set the **PDPRINTER** environment variable in your `.profile` file, using the **vi** editor.

1. Enter this command to change to your home directory:

```
cd
```

2. Make a backup copy of the file:

```
cp -p .profile .profile.org
```

The **-p** flag gives the copy the same file permissions and modification date and time as the original file.

3. Enter this command:

```
vi .profile
```

4. A typical `.profile` file contains lines similar to:

```
PATH=.:$HOME/bin:/bin:/usr/bin:/etc:/usr/ucb:/usr/bin/X11:tools/
usr/bin:/usr/lpp/cmvc/bin:/usr/OV/bin:/usr/local/tools/rs6/bin:/usr
/local/tools/rs6:/usr/dt/bin
export PATH
export EDITOR=vi
```

5. Insert or modify this line in the `.profile` file:

```
export PDPRINTER=LogicalDestinationName
```

where *LogicalDestinationName* is the name of the logical destination you want to set as your default.

6. Save the change in plain text format and exit from the editor.

7. Make the change effective by entering this command:

```
./profile
```

8. Verify the change by entering the command:

```
echo $PDPRINTER
```

The logical destination name you entered displays.

On the command line

To set the value of the environment variable **PDPRINTER** to `Destination3` for a single AIX session, enter:

```
export PDPRINTER=Destination3
```

Chapter 5. Notification events and event classes

Table 22 alphabetically lists the names of individual events that you can specify as values for the **event-identifiers** component of the **notification-profile** attribute. The information for each event includes a description, the event class or classes to which the event belongs, the InfoPrint objects that support the notification of the event, and the text of the notification message that InfoPrint generates for the event. Items in the message text shown in *italics* are variables for which InfoPrint supplies values when it issues the message.

Table 22. Notification events

<i>Event</i>	<i>Event Class</i>	<i>Objects Supported</i>
	<i>Description</i>	
	<i>Message</i>	
checkpoint-taken	class-job-status class-report	Job
	When this job was paused, the server saved checkpoint information for it. The server can restart the job at the checkpoint. Note: The server does not save checkpoint information for jobs terminated by errors.	
	5010-218 The server saved checkpoint information for job <i>JobID</i> (<i>ServerName:GlobalID</i>).	
close-to-discard-time	class-job-attention class-warning	Job Server
	The date and time specified by the job-discard-time or the job-retention-period attribute is approaching. InfoPrint will delete the job at the discard time.	
	5010-234 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) is close to being discarded.	
destination-disabled	class-actual-destination-attention class-logical-destination-attention class-warning	Actual destination Logical destination Queue Server
	InfoPrint disabled a logical destination or actual destination and it will not accept new jobs.	
	5010-240 Successfully disabled destination <i>ServerName:DestinationName</i> .	
destination-enabled	class-actual-destination-status class-logical-destination-status class-report	Actual destination Logical destination Queue Server
	InfoPrint enabled a logical destination or actual destination and it now accepts jobs.	
	5010-226 Successfully enabled destination <i>ServerName:DestinationName</i> .	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
destination-function-unavailable	class-actual-destination-status class-job-attention class-warning	Actual destination Server
	The actual destination requires an output device function, such as duplex or offset stacking, that is not available. The function is disabled, but processing continues.	
	5010-307 The destination <i>ServerName:DestinationName</i> requires a function that is not available.	
destination-needs-administrator	class-actual-destination-attention class-actual-destination-default class-job-attention class-warning	Actual destination Job Server
	The server or actual destination detected a condition requiring administrator intervention. The actual destination is disabled.	
	5010-306 The destination <i>ServerName:DestinationName</i> needs administrator attention.	
destination-needs-attention	class-actual-destination-attention class-actual-destination-default class-job-attention class-job-default class-warning	Actual destination Job Server
	The actual destination needs attention from a person, not necessarily the operator. The actual destination cannot process jobs until it receives attention.	
	5010-245 Actual destination <i>ServerName:destinationname</i> needs attention.	
destination-needs-operator	class-actual-destination-attention class-actual-destination-default class-job-attention class-job-default class-warning	Actual destination Job Server
	An actual destination needs operator attention. The actual destination cannot process jobs until it receives attention.	
	5010-246 Actual destination <i>ServerName:DestinationName</i> needs operator attention.	
destination-registered	class-actual-destination-status class-report	Actual destination Queue Server
	An actual destination has registered with this queue. The queue can now schedule jobs to this actual destination.	
	5010-223 Actual destination <i>ServerName:DestinationName</i> registered with queue <i>ServerName:QueueName</i> .	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
destination-shutdown-job-queued	class-actual-destination-attention class-job-attention class-warning	Actual destination Job Server
	The actual destination shut down after this job started processing. The job was queued and will be scheduled again.	
	5010-237 Actual destination <i>ServerName:DestinationName</i> was shut down after job <i>JobID (ServerName:GlobalID)</i> started processing.	
destination-state-changed	class-actual-destination-status class-state-changed	Actual destination
	The actual destination state changed. Processing continues.	
	5010-228 The state of actual destination <i>ServerName:DestinationName</i> changed to <i>State</i> .	
destination-timed-out	class-actual-destination-attention class-actual-destination-default class-warning	Actual destination Server
	The actual destination did not connect or get a response from the output device in the time specified by the destination-timeout-period actual destination attribute. Another application is using the output device or job progress at the output device has stopped. The actual destination continues its attempts to connect or print to the output device. The actual destination cannot process jobs until it connects to the device. Check the server error log for additional information.	
	5010-247 Actual destination <i>ServerName:DestinationName</i> has timed out.	
destination-unregistered	class-actual-destination-status class-warning	Actual destination Queue Server
	This actual destination is no longer registered with this queue and the queue no longer sends jobs to this actual destination.	
	5010-243 Actual destination <i>ServerName:DestinationName</i> is no longer registered with <i>ServerName:QueueName</i> .	
destinations-not-ready-for-job	class-job-attention class-job-default class-warning	Job Queue Server
	There are no actual destinations currently available that can support the “ready” attributes for the job. Ready attributes include job-batch , total-job-octets , default-medium , and page-media-select .	
	5010-702 The job <i>JobID (ServerName:GlobalID)</i> cannot be scheduled to an actual destination because resources are not currently ready.	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
detailed-messages	class-job-attention class-report	Actual destination Job Server
	The print backend has sent a message.	
	5010-302 Message from the print backend program	
disk-space-low	class-server-statusclass-warning	Server
	The server has encountered a disk-space-low situation, which means that some filesystem/drive being used by the server has passed some usage threshold.	
	5010-145 Filesystem/disk <i>filesystem/disk</i> is low on space; usage is <i>nn</i> percent. Note: If this is a DPF event, it is only sent once for each receiver, but multiple events might be received since multiple Host Receivers can be running.	
document-aborted-by-destination	class-aborted class-job-attention class-job-default	Actual destination Job Server
	The actual destination deleted the document without printing or sending it. Errors occurred during processing.	
	5010-292 Document <i>DocNum FileName</i> in job <i>JobID (ServerName:GlobalID)</i> was aborted by the actual destination.	
document-aborted-by-server	class-aborted class-job-attention class-job-default	Actual destination Job (AIX DSS only) Server
	The server aborted this document and deleted it.	
	5010-206 Document <i>DocNum (FileName)</i> in print job <i>JobID (ServerName:GlobalID)</i> was aborted by the server.	
document-cancelled-at-destination	class-aborted class-job-attention class-job-default	Actual destination Job Server
	The document was cancelled at the actual destination.	
	5010-293 Document <i>DocNum (FileName)</i> in job <i>JobID (ServerName:GlobalID)</i> was cancelled at the actual destination.	

Table 22. Notification events (continued)

<i>Event</i>	<i>Event Class</i>	<i>Objects Supported</i>
	<i>Description</i>	
	<i>Message</i>	
document-content	class-error class-job-problem	Actual destination Server
	The server detected an error in the content of this file during printing. An example of this type of error is a syntax error in the page description language for this file.	
	5010-208 An error was detected in document <i>DocNum (FileName)</i> of job <i>JobID (ServerName:GlobalID)</i> during printing.	
file-transferred	class-job-status class-report	Job
	A file transfer completed successfully. The file can now be modified without affecting the output.	
	5010-219 Server (<i>ServerName</i>) completed the transfer of document <i>DocNum (FileName)</i> in job <i>JobID (ServerName:GlobalID)</i> .	
internal-server-error	class-error class-server-attention class-server-default	Server
	A server error occurred. The process failed.	
	5010-215 An internal error was detected in server <i>ServerName</i> .	
job-aborted-by-server	class-aborted class-job-attention class-job-default	Actual destination Job Queue Server
	The server aborted this job because job or output device errors occurred during printing or transmission.	
	5010-204 Job <i>JobID (ServerName:GlobalID)</i> stopped printing due to job or device errors.	
job-assigned-to-queue	class-job-status class-report	Job Queue Server
	This job was assigned to this queue in this state. Processing continues.	
	5010-301 The job <i>JobID (ServerName:GlobalID)</i> is assigned to queue <i>ServerName:QueueName</i> and is in the <i>State</i> state.	
job-cancelled-by-operator	class-aborted class-job-attention class-job-default	Actual destination Job Queue Server
	The operator or administrator deleted the job.	
	5010-196 Job <i>JobID (ServerName:GlobalID)</i> was cancelled by the operator or administrator.	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
job-cancelled-by-user	class-aborted class-job-attention	Actual destination Job Queue Server
	The user deleted the job.	
	5010-197 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was cancelled by the user.	
job-cannot-be-scheduled	class-job-attention class-job-default class-warning	Job Queue Server
	There are no longer any actual destinations available that can support the attributes for the job. The actual destination that supported the attributes for the job at submission is no longer available. The job remains in the queue. Resubmit the job to a logical destination that supports the attributes for the job.	
	5010-303 The job <i>JobID</i> (<i>ServerName:GlobalID</i>) cannot be scheduled to an actual destination.	
job-completed	class-job-default class-job-status class-report	Actual destination Job Queue Server
	The job completed processing. If more than one actual destination processed this job, the last actual destination is identified in the message. It might or might not have completed successfully. Check the output.	
	5010-055 Job name <i>jobname</i> with Job ID (<i>ServerName:GlobalID</i>) completed on <i>Destination</i> . 5010-071 Job name <i>jobname</i> with ID 18 (<i>ServerName:GlobalID</i>) completed successfully on <i>Destination</i> . 5010-072 Job name <i>jobname</i> with ID 19 (<i>ServerName:GlobalID</i>) completed successfully with errors on <i>Destination</i> .	
job-discarded	class-job-attention class-report	Job Queue Server
	The date and time specified by the job-discard-time , the job-retain-until , or the job-retention-period attribute passed. InfoPrint deleted the job. The job might or might not have printed if it was discarded because of the job-retain-until or job-retention-period value.	
	5010-220 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was discarded by the server after it printed or the retention period expired.	

Table 22. Notification events (continued)

<i>Event</i>	<i>Event Class</i>	<i>Objects Supported</i>
	<i>Description</i>	
	<i>Message</i>	
job-modified	class-job-status class-warning	Job
	The job was modified. Processing continues.	
	5010-202 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was modified.	
job-paused	class-job-attention class-warning	Job
	The job was paused. If the job state was processing or printing , it stopped. InfoPrint cannot schedule the job until it is resumed.	
	5010-203 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was paused.	
job-promoted	class-job-status class-report	Job Queue Server
	The job was promoted to the highest position in the queue.	
	5010-198 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was promoted.	
job-reordered	class-job-status class-report	Job Queue Server
	The job was successfully moved to a different actual destination or to the unassigned jobs area.	
	5010-846 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was moved from <i>ServerName1:DestinationName1</i> to <i>ServerName2:DestinationName2</i> .	
job-queued	class-job-status class-warning	Job
	InfoPrint added to the job to the queue for rescheduling because the actual destination that accepted the job can no longer print the job.	
	5010-322 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) is added to the queue to be scheduled again.	
job-resubmitted	class-job-status class-report	Job Queue Server
	The job was successfully resubmitted to a different logical destination. Processing continues.	
	5010-222 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was resubmitted to logical destination <i>ServerName:DestinationName</i> from queue <i>ServerName:QueueName</i> .	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
job-resumed	class-job-status class-report	Job Queue Server
	The job was resumed. If the job state is pending, InfoPrint can schedule the job to an actual destination.	
	5010-199 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was resumed.	
job-retained	class-report	Job
	The job is retained.	
	5010-300 The job <i>JobID</i> (<i>ServerName:GlobalID</i>) is retained.	
job-state-changed	class-job-status class-state-changed	Job
	The state of the job has changed. Processing continues.	
	5010-201 The state of job <i>JobID</i> (<i>ServerName:GlobalID</i>) changed to <i>State</i> .	
job-submission-not-complete	class-error class-job-problem	Job Server
	The server waited for the amount of time specified in its job-submission-timer attribute to receive an indication that all of the document objects in a job have been sent. It did not receive that indication. The server will process the documents it has received as a complete job.	
	5010-209 The final document indication for job <i>JobID</i> (<i>ServerName:GlobalID</i>) was not received by the server in the server's job-submission-timer interval. Job processing will continue.	
low-on-memory	class-server-attention class-server-configuration class-server-default class-server-status class-warning	Server
	On AIX only, when the Infoprint Server starts hitting memory thresholds, the Infoprint Server logs this information in its error log and sends notification messages for this occurrence.	
	5010-642 The Infoprint Server <i>ServerID</i> detected a memory shortage and is trying to recover memory. 5010-648 The Infoprint Server <i>ServerID</i> is using <i>nn</i> percent of its available memory.	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
memory-exhausted	class-error class-server-attention class-server-default	Server
	The Infoprint Server has no memory available.	
	5010-647 No memory available for the <i>Infoprint Server</i> . Attempting shut down.	
no-document	class-error class-job-problem	Actual destination Job Server
	The server could not access the document. The document and possibly the entire job have been aborted. Check the error log for messages related to this failure.	
	5010-210 Document <i>DocNum (FileName)</i> in job <i>JobID (ServerName:GlobalID)</i> could not be accessed by the server.	
no-resource	class-error class-job-problem	Actual destination Server
	A resource needed by this job is unavailable. InfoPrint aborted the job. Check the error log for messages related to this failure.	
	5010-211 The resource <i>Resource</i> needed by job <i>JobID (ServerName:GlobalID)</i> was not available.	
object-cleaned	class-actual-destination-default class-actual-destination-status class-logical-destination-default class-logical-destination-status class-queue-default class-queue-status class-server-default class-server-status class-warning	Actual destination Logical destination Queue Server
	InfoPrint deleted jobs from this object. Processing continues.	
	5010-244 Successfully cleaned object <i>ObjectClass</i> <i>ServerName:ObjectName</i> .	
object-created	class-actual-destination-configuration class-logical-destination-configuration class-queue-configuration class-report	Actual destination Logical destination Queue Server
	The object was created.	
	5010-224 Successfully created object <i>ObjectClass</i> <i>ServerName:ObjectName</i> .	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
object-deleted	class-actual-destination-configuration class-actual-destination-default class-logical-destination-configuration class-logical-destination-default class-queue-configuration class-queue-default class-server-configuration class-server-default class-report	Actual destination Job Logical destination Queue Server
	The object was deleted.	
	5010-225 Successfully deleted object <i>ObjectClass</i> <i>ServerName:ObjectName.</i>	
object-modified	class-actual-destination-configuration class-logical-destination-configuration class-queue-configuration class-server-configuration class-warning	Actual destination Logical destination Queue Server
	The object was modified.	
	5010-241 Successfully modified object <i>ObjectClass</i> <i>ServerName:ObjectName.</i>	
object-paused	class-actual-destination-attention class-queue-attention class-warning	Actual destination Job Queue Server
	InfoPrint paused an actual destination or queue and it cannot process jobs.	
	5010-242 Successfully paused object <i>ObjectClass</i> <i>ServerName:ObjectName.</i>	
object-resumed	class-actual-destination-status class-queue-status class-report	Actual destination Job Queue Server
	InfoPrint resumed an actual destination or queue.	
	5010-227 Successfully resumed object <i>ObjectClass</i> <i>ServerName:ObjectName.</i>	
other-error	class-error class-server-attention	Actual destination Server
	An error occurred for this object that no other message describes. Check the error log for messages related to this failure.	
	5010-217 Server <i>ServerName</i> encountered an error.	

Table 22. Notification events (continued)

<i>Event</i>	<i>Event Class</i>	<i>Objects Supported</i>
	<i>Description</i>	
	<i>Message</i>	
other-warning	class-server-attention class-warning	Actual destination Server
	The object encountered a warning condition that no other event describes. This warning condition might precede an error. Check the error log for messages related to this failure.	
	5010-236 Server <i>ServerName</i> has encountered a warning condition.	
out-of-disk-space	class-error class-server-default class-server-status	Server
	The server has encountered an out-of-disk-space situation, which means that some filesystem/drive being used by the server is full and cannot be written to.	
	5010-080 Out of filesystem/disk space in "%s". Note: If this is a DPF event, it is only sent once for each receiver, but multiple events might be received since multiple Host Receivers can be running.	
out-of-dpf-haids	class-error class-server-default class-server-status	Server
	A Host Receiver has encountered a situation where there are no more HAIDS (Host Assigned IDs) to assign, which means that too many jobs are on the spool. To alleviate this situation, the operator needs to print or delete jobs from the spool.	
	5010-259 DPF Host Receiver "%s" is out of Host Assigned IDs (HAIDS). Print or delete DPF jobs to free up HAIDS.	
out-of-dpf-job-numbers	class-error class-server-default class-server-status	Server
	A Host Receiver has encountered a situation where there are no more job numbers to assign, which means that too many jobs are on the spool. To alleviate this situation, the operator needs to print or delete jobs from the spool.	
	5010-267 DPF Host Receiver "%s" is out of DPF job numbers. Print or delete DPF jobs to free up HAIDS.	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
out-of-dpf-raids	class-error class-server-default class-server-status	Server
	A Host Receiver has encountered a situation where there are no more RAIDs (RPM Assigned IDs) to assign, which means that too many jobs are on the spool. To alleviate this situation, the operator needs to print or delete jobs from the spool.	
	5010-262 DPF Host Receiver "%s" is out of RPM Assigned IDs (RAIDS). Print or delete DPF jobs to free up RAIDs.	
past-discard-time	class-error class-job-attention class-job-default	Job Queue Server
	The date and time specified by the job-discard-time job attribute passed before the job printed and InfoPrint discarded the job.	
	5010-213 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) was discarded before it printed.	
processing-started	class-job-status class-report	Actual destination Job Queue Server
	The server has begun to process the job. InfoPrint has scheduled the job to print on an actual destination.	
	5010-200 Job <i>JobID</i> (<i>ServerName:GlobalID</i>) is processing.	
queue-backlogged	class-queue-attention class-queue-default class-warning	Job Queue Server
	InfoPrint calculates that there are too many jobs in this queue for all jobs to print in the amount of time specified for the object-class-backlog-upper-bound attribute. The queue continues to accept jobs, but there is a delay before they print.	
	5010-304 The queue <i>ServerName:QueueName</i> is backlogged.	
queue-no-longer-backlogged	class-queue-status class-report	Job Queue Server
	The queue is no longer backlogged. InfoPrint calculates that the jobs currently in the queue will print in the amount of time specified for the object-class-backlog-lower-bound attribute.	
	5010-299 The queue <i>ServerName:QueueName</i> is no longer backlogged.	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
queue-state-changed	class-queue-status class-state-changed	Queue
	The queue state changed. Processing continues.	
	5010-230 The state of queue <i>ServerName:QueueName</i> changed to <i>State</i> .	
resource-needs-attention	class-actual-destination-attention class-warning	Actual destination Server
	This resource needs attention from a person, not necessarily the operator. InfoPrint cannot process jobs requiring this resource until someone corrects the problem.	
	5010-238 Resource <i>Resource</i> on actual destination <i>ServerName:DestinationName</i> needs attention.	
resource-needs-operator	class-actual-destination-attention class-warning	Actual destination Server
	This resource needs attention from an operator. InfoPrint cannot process jobs requiring this resource until an operator corrects the problem.	
	5010-239 Resource <i>Resource</i> on actual destination <i>ServerName:DestinationName</i> needs operator attention.	
sapcbd-down	class-server-attention class-server-configuration class-server-default class-server-status class-warning	Server
	The SAP callback daemon (startcbd) is down.	
	5010-889 Unable to deliver SAP events to the callback daemon for the <i>ServerName</i> SAP system. Make sure that the callback daemon for this system and others are running.	
sapconnectd-down	class-server-attention class-server-configuration class-server-default class-server-status class-warning	Server
	The SAP connect daemon (sapconnectd) is down.	
	5010-889 Unable to deliver SAP events to the callback or SAP connect daemon for the <i>ServerName</i> SAP system. Make sure that the callback daemon or the SAP connect daemon for this system and others are running.	

Table 22. Notification events (continued)

Event	Event Class	Objects Supported
	Description	
	Message	
server-shutdown-complete	class-server-attention class-server-default class-report	Server
	This server has shut down and is no longer available.	
	5010-295 Successfully shut down server <i>ServerName</i> .	
server-shutdown-started	class-server-attention class-warning	Server
	This server has begun to shut down. It does not accept jobs.	
	5010-305 The server <i>ServerName</i> is shutting down.	
server-startup-complete	class-report class-server-configuration	Server
	InfoPrint started this server.	
	5010-294 Successfully started server <i>ServerName</i> .	
server-state-changed	class-server-status class-state-changed	Server
	The state of the server has changed.	
	5010-299 The state of server <i>ServerName</i> changed to <i>State</i> .	
unable-to-register	class-warning	Actual destination Server
	The actual destination could not register with the queue in the amount of time specified for the destination-register-threshold actual destination attribute. InfoPrint cannot schedule jobs to the actual destination.	
	5010-437 The actual destination <i>ServerName:DestinationName</i> cannot register with the queue <i>QueueName</i> .	
unrecognized-resource	class-error class-job-problem	Actual destination Server
	A resource required for this job is not known to the server. The job was aborted. Check the server error log for messages related to this failure.	
	5010-214 Resource <i>Resource</i> that is required for job <i>JobID</i> (<i>ServerName:GlobalID</i>) is not known to the server.	

An event class is an easy way to include multiple events in a value. Event classes group events based on the functions for which they provide notification. For example, some classes are specific to configuration tasks while other classes provide information about the status of InfoPrint objects. Each event class name begins with **class**.

Note: An event identifier can occur in more than one class. For example, **object-cleaned** occurs in **class-logical-destination-default**, **class-logical-destination-status**, **class-actual-destination-default**, **class-actual-destination-status**, **class-object-class-default**, **class-object-class-status**, **class-server-default**, **class-server-status**, and **class-warning**. If the notification profile values list any of these event classes and you clean a logical destination, actual destination, queue, or server, InfoPrint sends a message to the person identified in that value.

Table 23. Notification event classes

<i>Event Class</i>	<i>Description</i>
	<i>Events</i>
class-aborted	<p>An aborted event occurs whenever a server aborts a job or document object, or when the user or operator cancels a job.</p> <p>document-aborted-by-destination document-aborted-by-server document-cancelled-at-destination job-aborted-by-server job-cancelled-by-operator job-cancelled-by-user</p>
class-actual-destination-attention	<p>These events indicate that problems exist with the actual destination. Such problems usually require an operator or administrator to intervene.</p> <p>destination-disabled destination-needs-administrator destination-needs-attention destination-needs-operator destination-shutdown-job-queued destination-timed-out object-paused resource-needs-attention resource-needs-operator</p>
class-actual-destination-configuration	<p>These events have to do with the creation or deletion of an actual destination, or with modification of the attributes of an actual destination.</p> <p>object-created object-deleted object-modified</p>
class-actual-destination-default	<p>This is the default event class for actual destinations.</p> <p>destination-needs-administrator destination-needs-attention destination-needs-operator destination-timed-out object-cleaned object-deleted</p>

Table 23. Notification event classes (continued)

<i>Event Class</i>	<i>Description</i>
	<i>Events</i>
class-actual-destination-status	<p>This event class includes events that give detailed status about the actual destination. These changes in status are often routine and do not require intervention.</p> <p>destination-enabled destination-function-unavailable destination-registered destination-state-changed destination-unregistered object-cleaned object-resumed</p>
class-error	<p>An error event occurs whenever an error occurs. Generally, an error event signals a condition that can prevent the job from completing successfully, depending on the settings of other parameters.</p> <p>document-content internal-server-error job-submission-not-complete memory-exhausted no-document no-resource other-error out-of-disk-space out-of-dpf-haids out-of-dpf-job-numbers out-of-dpf-raids past-discard-time unrecognized-resource</p>
class-job-attention	<p>These events indicate that problems exist with a job. They usually require an operator or administrator to intervene.</p> <p>close-to-discard-time destination-function-unavailable destination-needs-administrator destination-needs-attention destination-needs-operator destination-shutdown-job-requeued destinations-not-ready-for-job detailed-messages document-aborted-by-destination document-aborted-by-server document-cancelled-at-destination job-aborted-by-server job-cancelled-by-operator job-cancelled-by-user job-cannot-be-scheduled job-discarded job-paused past-discard-time</p>

Table 23. Notification event classes (continued)

<i>Event Class</i>	<i>Description</i>
	<i>Events</i>
class-job-default	This is the default event class for jobs.
	document-aborted-by-destination document-aborted-by-server document-cancelled-at-destination destination-needs-attention destination-needs-operator destinations-not-ready-for-job job-aborted-by-server job-cancelled-by-operator job-cannot-be-scheduled job-completed past-discard-time
class-job-problem	These are events in which the job has found a problem but will try to proceed.
	document-content job-submission-not-complete no-document no-resource unrecognized-resource
class-job-status	This event class includes events that give detailed status about the job. These changes in status are often routine and do not require intervention.
	checkpoint-taken file-transferred job-assigned-to-queue job-completed job-modified job-promoted job-reordered job-requeued job-resubmitted job-resumed job-state-changed processing-started
class-logical-destination-attention	This event indicates that a problem exists with the logical destination. An operator or administrator usually has to intervene.
	destination-disabled
class-logical-destination-configuration	These events have to do with the creation or deletion of a logical destination, or with modification of the attributes of a logical destination.
	object-created object-deleted object-modified

Table 23. Notification event classes (continued)

<i>Event Class</i>	<i>Description</i>
	<i>Events</i>
class-logical-destination-default	<p>This is the default event class for logical destinations.</p> <p>object-cleaned object-deleted</p>
class-logical-destination-status	<p>This event class includes events that give detailed status about the logical destination. These changes in status are often routine and do not require intervention.</p> <p>destination-enabled object-cleaned</p>
class-queue-attention	<p>These events indicate that problems exist with the queue. An operator or administrator usually has to intervene.</p> <p>object-paused queue-backlogged</p>
class-queue-configuration	<p>These events have to do with the creation or deletion of a queue, or with the modification of the attributes of a queue.</p> <p>object-created object-deleted object-modified</p>
class-queue-default	<p>This is the default event class for queues.</p> <p>object-cleaned object-deleted queue-backlogged</p>
class-queue-status	<p>This event class includes events that give detailed status about the queue. These changes in status are often routine and do not require intervention.</p> <p>object-cleaned object-resumed queue-no-longer-backlogged queue-state-changed</p>

Table 23. Notification event classes (continued)

<i>Event Class</i>	<i>Description</i>
	<i>Events</i>
class-report	<p>A report event occurs whenever a significant point in processing occurs.</p> <p> checkpoint-taken destination-enabled destination-registered detailed-messages file-transferred job-assigned-to-queue job-completed job-discarded job-promoted job-reordered job-resubmitted job-resumed job-retained object-created object-deleted object-resumed processing-started queue-no-longer-backlogged server-shutdown-complete server-startup-complete </p>
class-server-attention	<p>These events indicate that problems exist with the server. They usually require an administrator to intervene.</p> <p> internal-server-error low-on-memory memory-exhausted other-error other-warning sapcbd-down sapconnectd-down server-shutdown-complete server-shutdown-started </p>
class-server-configuration	<p>These events have to do with the creation or deletion of a server or with modification of the attributes for a server.</p> <p> low-on-memory object-deleted object-modified sapcbd-down sapconnectd-down server-startup-complete </p>

Table 23. Notification event classes (continued)

<i>Event Class</i>	<i>Description</i>
	<i>Events</i>
class-server-default	<p>This is the default event class for servers.</p> <p>internal-server-error low-on-memory memory-exhausted object-cleaned object-deleted out-of-disk-space out-of-dpf-haids out-of-dpf-job-numbers out-of-dpf-raids sapcbd-down sapconnectd-down server-shutdown-complete</p>
class-server-status	<p>This event class includes events that give detailed status about the server. These changes in status are often routine and do not require intervention.</p> <p>disk-space-low low-on-memory object-cleaned out-of-disk-space out-of-dpf-haids out-of-dpf-job-numbers out-of-dpf-raids sapcbd-down sapconnectd-down server-state-changed</p>
class-state-changed	<p>A state-change event occurs whenever the state of an actual destination, job, queue, or server changes.</p> <p>destination-state-changed job-state-changed queue-state-changed server-state-changed</p>

Table 23. Notification event classes (continued)

<i>Event Class</i>	<i>Description</i>
	<i>Events</i>
class-warning	<p>A warning event occurs whenever a condition arises which affects processing. Generally, a warning event signals a condition that does not prevent completion of the processing, but it might require some action by the operator or user.</p>
	<p> close-to-discard-time destination-disabled destination-function-unavailable destination-needs-administrator destination-needs-attention destination-needs-operator destination-shutdown-job-requeued destination-timed-out destination-unregistered destinations-not-ready-for-job disk-space-low job-cannot-be-scheduled job-modified job-paused job-requeued low-on-memory object-cleaned object-modified object-paused other-warning queue-backlogged resource-needs-attention resource-needs-operator sapcbd-down sapconnectd-down server-shutdown-started unable-to-register </p>

Appendix A. Attribute-to-object listing

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
accept-jobs	Actual destination	"accept-jobs" on page 483
accept-unsupported-jobs	Server	"accept-unsupported-jobs" on page 927
account-text	Default document Document	"account-text" on page 691 "account-text" on page 691
accounting-exit	Actual destination	"accounting-exit" on page 484
ack-interval	Actual destination	"ack-interval" on page 485
actual-destinations-assigned	Queue	"actual-destinations-assigned" on page 909
actual-destinations-ready	Queue Server	"actual-destinations-ready" on page 909 "actual-destinations-ready" on page 928
actual-destinations-requested	Default job Job	"actual-destinations-requested" on page 797 "actual-destinations-requested" on page 797
actual-destinations-supported	Server	"actual-destinations-supported" on page 928
add-carriage-returns	Actual destination	"add-carriage-returns" on page 486
add-line-feeds	Actual destination	"add-line-feeds" on page 486
address1-text	Default document Document	"address1-text" on page 691 "address1-text" on page 691
address2-text	Default document Document	"address2-text" on page 692 "address2-text" on page 692
address3-text	Default document Document	"address3-text" on page 693 "address3-text" on page 693
address4-text	Default document Document	"address4-text" on page 693 "address4-text" on page 693
ascii-character-map	Actual destination	"ascii-character-map" on page 487
ascii-font-map	Actual destination	"ascii-font-map" on page 488
assign-to-destination	Queue	"assign-to-destination" on page 910

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
assign-to-printer	Queue	"assign-to-destination" on page 910
associated-queue	Actual destination Logical destination	"associated-queue" on page 489 "associated-queue" on page 870
associated-server	Actual destination Auxiliary sheet Default associated server (Default Document Only) Default job "associated-server (Default Job Only)" Log Logical destination Medium Queue Resource context Transform	"associated-server" on page 490 "associated-server" on page 679 "associated-server (Default Document Only)" on page 694 "associated-server (Default Job Only)" on page 797 "associated-server" on page 862 "associated-server" on page 870 "associated-server" on page 901 "associated-server" on page 911 "associated-server" on page 924 "associated-server" on page 964
attachment-type	Actual destination	"attachment-type" on page 490
attribute-map	Actual destination	"attribute-map" on page 491
audit-exit	Actual destination	"audit-exit" on page 492
authorize-jobs	Logical destination	"authorize-jobs" on page 871
auto-create-shared-printers	Server	"auto-create-shared-printers (Windows Only)" on page 929
automatic-postscript-mode-switch	Actual destination	"auto-create-shared-printers (Windows Only)" on page 929
auxiliary-sheet-identifier	Auxiliary sheet	"auxiliary-sheet-identifier" on page 679
auxiliary-sheet-selection	Default job Job	"auxiliary-sheet-selection" on page 798 "auxiliary-sheet-selection" on page 798
auxiliary-sheet-selections-supported	Actual destination Logical destination	"auxiliary-sheet-selection" on page 798 "auxiliary-sheet-selections-supported" on page 871
backlog	Queue	"queue-backlog" on page 921
backlog-lower-bound	Queue	"backlog-lower-bound" on page 912
backlog-update-interval	Queue	"backlog-update-interval" on page 912
backlog-upper-bound	Queue	"backlog-upper-bound" on page 913
backlogged	Queue	"backlogged" on page 913

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
base-printer	Default Document Document	"base-printer" on page 694 "base-printer" on page 694
backup-destinations	Actual destination	"backup-destinations" on page 495
booklet-fold	Actual destination	"booklet-fold" on page 495
building-text	Default document Document	"building-text" on page 696 "building-text" on page 696
cancel-individual-document-supported	Actual destination Server	"cancel-individual-document-supported" on page 496 "cancel-individual-document-supported" on page 929
callback-number	Default document Document	"callback-number" on page 697 "callback-number" on page 697
capture-inline-cmr-resources	Actual destination	"capture-inline-cmr-resources" on page 496
capture-inline-otf-resources	Actual destination	"capture-inline-otf-resources" on page 497
carriage-control-type	Default document Document	"carriage-control-type" on page 697 "carriage-control-type" on page 697
carriage-control-type	Default document Document	"carriage-control-type" on page 697 "carriage-control-type" on page 697
carriage-control-type	Default document Document	"carriage-control-type" on page 697 "carriage-control-type" on page 697
carriage-control-types-supported	Actual destination Logical destination	"carriage-control-types-supported" on page 498 "carriage-control-types-supported" on page 872
character-mappings-supported	Actual destination Logical destination	"character-mappings-supported" on page 499 "character-mappings-supported" on page 873
chars	Default document Document	"chars" on page 698 "chars" on page 698
checkpoint-at-stacker	Actual destination	"checkpoint-at-stacker" on page 500
checkpoint-formats-supported	Actual destination	"checkpoint-formats-supported" on page 501
class	Default document Document	"class" on page 699 "class" on page 699
classes-ready	Actual destination	"classes-ready" on page 501

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
client-driver-names	Actual destination Logical destination Server	"client-driver-names" on page 502 "client-driver-names" on page 873 "client-driver-names (Windows only)" on page 930
color-bits-per-plane	Actual destination Default document Document	"color-bits-per-plane" on page 503 "color-bits-per-plane" on page 699 "color-bits-per-plane" on page 699
color-bits-per-plane-supported	Actual destination	"color-bits-per-plane-supported" on page 503
color-mapping-table	Actual destination Default document Document	"color-mapping-table" on page 504 "color-mapping-table" on page 700 "color-mapping-table" on page 700
color-profile	Actual destination Default document Document	"color-profile" on page 505 "color-profile" on page 700 "color-profile" on page 700
color-profiles-supported	Actual destination	"color-profiles-supported" on page 506
color-rendering-intent	Actual destination Default document Document	"color-rendering-intent" on page 506 "color-rendering-intent" on page 701 "color-rendering-intent" on page 701
color-toner-saver	Actual destination Default document Document	"color-toner-saver" on page 508 "color-toner-saver" on page 702 "color-toner-saver" on page 702
color-toner-saver-supported	Actual destination	"color-toner-saver-supported" on page 508
command	Actual destination	"destination-command" on page 515
comment	Default job Job	"job-comment" on page 814 "job-comment" on page 814
completion-time	Job	"completion-time (Job Only)" on page 799
conditional-terminating-return-code	Transform	"conditional-terminating-return-code" on page 965
connection-timeout	Actual destination	"connection-timeout" on page 509
content-orientation	Default document Document	"content-orientation" on page 703 "content-orientation" on page 703
content-orientations-supported	Actual destination Logical destination	"content-orientations-supported" on page 510 "content-orientations-supported" on page 874
context-address	Resource context	"context-address" on page 924

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
convert-to-ebcdic	Default document Document	"convert-to-ebcdic" on page 704 "convert-to-ebcdic" on page 704
convert-to-ebcdic-supported	Actual destination Logical destination	"convert-to-ebcdic-supported" on page 510 "convert-to-ebcdic-supported" on page 875
copies	Default document Document	"copy-count" on page 705 "copy-count" on page 705
copy-count	Default document Document	"copy-count" on page 705 "copy-count" on page 705
count-job-pages	Server	"count-job-pages" on page 930
creation-time	Job	"creation-time (Job Only)" on page 799
current-backlog	Queue	"queue-backlog" on page 921
current-job-state	Job	"current-job-state (Job Only)" on page 800
current-page-printing	Job	"current-page-printing (Job Only)" on page 801
d-s-s-requested	Default job Job	"dss-requested" on page 808 "dss-requested" on page 808
data-fidelity-problem-reported	Default document Document	"data-fidelity-problem-reported" on page 705 "data-fidelity-problem-reported" on page 705
data-fidelity-problem-reported-supported	Actual destination Logical destination	"data-fidelity-problem-reported-supported" on page 511 "data-fidelity-problem-reported-supported" on page 876
deadline-in-jeopardy	Job	"deadline-in-jeopardy (Job Only)" on page 802
default-character-mapping	Default document Document	"default-character-mapping" on page 706 "default-character-mapping" on page 706
default-font-fidelity-action	Actual destination	"default-font-fidelity-action" on page 512
default-font-resolution	Actual destination	"default-font-resolution" on page 513
default-input-tray	Actual destination Default document Document	"default-input-tray" on page 513 "default-input-tray" on page 707 "default-input-tray" on page 707
default-medium	Default document Document	"default-medium" on page 708 "default-medium" on page 708
default-printer-resolution	Default document Document	"default-printer-resolution" on page 709 "default-printer-resolution" on page 709

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delete-segment-list	Default job Job	"delete-segment-list" on page 803 "delete-segment-list" on page 803
department-text	Default document Document	"department-text" on page 710 "department-text" on page 710
descriptor	Actual destination Auxiliary sheet Default document descriptor (Default Document Only) Default job Log Logical destination Medium Queue Resource context Server Transform	"descriptor" on page 514 "descriptor" on page 679 "descriptor (Default Document Only)" on page 710 "descriptor (Default Job Only)" on page 803 "descriptor" on page 863 "descriptor" on page 876 "descriptor" on page 901 "descriptor" on page 914 "descriptor" on page 925 "descriptor" on page 931 "descriptor" on page 965
destination-associated-destinations	Logical destination	"destination-associated-destinations" on page 877
destination-command	Actual destination	"destination-command" on page 515
destination-company-text	Default document Document	"destination-company-text" on page 711 "destination-company-text" on page 711
destination-data-stream	Actual destination	"destination-data-stream" on page 516
destination-initial-value-document	Logical destination	"destination-initial-value-document (Document Only)" on page 711 "destination-initial-value-document" on page 877
destination-initial-value-job	Job Logical destination	"destination-initial-value-job (Job Only)" on page 804 "destination-initial-value-job" on page 878
destination-locations	Actual destination Logical destination	"destination-locations" on page 517 "destination-locations" on page 878
destination-locations-requested	Default job Job	"destination-locations-requested" on page 804 "destination-locations-requested" on page 804
destination-model	Actual destination Logical destination	"destination-model" on page 518 "destination-model" on page 879
destination-models-requested	Default job Job	"destination-models-requested" on page 805 "destination-models-requested" on page 805
destination-name	Actual destination Logical destination	"destination-name" on page 519 "destination-name" on page 879
destination-name-requested	Job	"destination-name-requested (Job Only)" on page 806

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
destination-needs-attention-time	Actual destination	"destination-needs-attention-time" on page 519
destination-needs-key-operator-attention-time	Actual destination	"destination-needs-key-operator-attention-time" on page 520
destination-pass-through	Actual destination Default document Document	"destination-pass-through" on page 521 "destination-pass-through" on page 712 "destination-pass-through" on page 712
destination-poll-interval	Actual destination	"destination-poll-interval" on page 522
destination-realization	Actual destination Logical destination	"destination-realization" on page 522 "destination-realization" on page 880
destination-register-threshold	Actual destination	"destination-register-threshold" on page 522
destination-release-timer	Actual destination	"destination-release-timer" on page 523
destination-state	Actual destination	"destination-state" on page 524
destination-states-supported	Server	"destination-states-supported" on page 932
destination-support-system	Actual destination Logical destination	"destination-support-system" on page 525 "destination-support-system" on page 880
destination-support-systems-supported	Server	"destination-support-systems-supported" on page 933
destination-tcpip-internet-address	Actual destination	"destination-tcpip-internet-address" on page 526
destination-tcpip-port-number	Actual destination	"destination-tcpip-port-number" on page 527
destination-timeout-period	Actual destination	"destination-timeout-period" on page 528
destinations-assigned	Job	"destinations-assigned (Job Only)" on page 807
destinations-ready	Logical destination	"destinations-ready" on page 881
destinations-used	Job	"destinations-used (Job Only)" on page 807
device-contact	Actual destination	"device-contact" on page 529
device-description	Actual destination	"device-description" on page 529
device-input-trays	Actual destination	"device-input-trays" on page 530
device-location	Actual destination	"device-location" on page 531

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
device-manufacturer	Actual destination	“device-manufacturer” on page 532
device-marker-supplies	Actual destination	“device-marker-supplies” on page 533
device-media-supported	Actual destination	“device-media-supported” on page 533
device-model	Actual destination	“device-model” on page 534
device-name	Actual destination	“device-name” on page 534
device-op-panel-locked	Actual destination	“device-op-panel-locked” on page 535
device-output-bins	Actual destination	“device-output-bins” on page 536
device-printer-name	Actual destination	“device-printer-name” on page 537
device-ready-media	Actual destination	“device-ready-media” on page 537
device-serial-number	Actual destination	“device-serial-number” on page 538
device-state	Actual destination	“device-state” on page 539
device-support-system	Actual destination Logical destination	“destination-support-system” on page 525 “destination-support-system” on page 880
device-support-system-requested	Default job Job	“dss-requested” on page 808 “dss-requested” on page 808
device-version	Actual destination	“device-version” on page 539
disallowed-list-object-classes	Server	“disallowed-list-object-classes (AIX only)” on page 934
discard-time	Job	“job-discard-time (Job Only)” on page 817
document-attributes-supported	Actual destination Server	“document-attributes-supported” on page 540 “document-attributes-supported” on page 934
document-comment	Default document Document	“document-comment” on page 713 “document-comment” on page 713
document-content	Document	“document-content (Document Only)” on page 713
document-content-list	Document	“document-content-list (Document Only)” on page 714
document-file-name	Document	“document-file-name (Document Only)” on page 714

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
document-finishing	Default document Document	"document-finishing" on page 715 "document-finishing" on page 715
document-finishings-supported	Actual destination	"document-finishings-supported" on page 546
document-format	Default document Document	"document-format" on page 715 "document-format" on page 715
document-formats-ripped-at-destination	Actual destination	"document-formats-ripped-at-destination" on page 547
document-formats-supported	Actual destination Logical destination Transform	"document-formats-supported" on page 548 "document-formats-supported" on page 882 "document-formats-supported" on page 966
document-number	Document	"document-sequence-number (Document Only)" on page 717
document-sequence-number	Document	"document-sequence-number (Document Only)" on page 717
document-type	Document	"document-type (Document Only)" on page 718
document-types-supported	Actual destination Logical destination	"document-types-supported" on page 550 "document-types-supported" on page 883
document-varying-attributes-supported	Actual destination Server	"document-varying-attributes-supported" on page 551 "document-varying-attributes-supported" on page 935
dss-job-message-disposition	Actual destination	iprrl_pptdjmd.dita#iprrl_pptdjmd
dss-job-message-log-size	Actual destination	"dss-job-message-log-size" on page 553
dss-job-message-log-wrap	Actual destination	"dss-job-message-log-wrap" on page 554
dss-requested	Default job Job	"dss-requested" on page 808 "dss-requested" on page 808
ebcdic-character-mapping	Actual destination	"ebcdic-character-mapping" on page 554
email-from-address	Default document Document	"email-from-address" on page 719 "email-from-address" on page 719
email-to-address	Default document Document	"email-to-address" on page 719 "email-to-address" on page 719
enabled	Actual destination Log Logical destination	"enabled" on page 555 "enabled" on page 863 "enabled" on page 883

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
end-message	Default job Job	"job-end-message" on page 817 "job-end-message" on page 817
end-message-supported	Actual destination Logical destination	"end-message-supported" on page 555 "end-message-supported" on page 884
end-sheets-supported	Actual destination	"end-sheets-supported" on page 556
estimated-completion-time	Job	"estimated-completion-time (Job Only)" on page 809
estimated-processing-time	Job	"estimated-processing-time (Job Only)" on page 810
events-supported	Server	"events-supported" on page 935
explicit-page-placement	Default document Document	"explicit-page-placement" on page 720 "explicit-page-placement" on page 720
fax-number	Default document Document	"fax-number" on page 724 "fax-number" on page 724
fax-to-name	Default document Document	"fax-to-name" on page 724 "fax-to-name" on page 724
file-name	Document	"document-file-name (Document Only)" on page 714
file-size-range-supported	Actual destination	"file-size-range-supported" on page 557
font-fidelity-action	Default document Document	"font-fidelity-action" on page 725 "font-fidelity-action" on page 725
font-processing-messages	Default document Document	"font-processing-messages" on page 725 "font-processing-messages" on page 725
font-resolution	Default document Document	"font-resolution" on page 726 "font-resolution" on page 726
font-resolutions-supported	Actual destination	"font-resolutions-supported" on page 558
force-destination-setup	Actual destination	"force-destination-setup" on page 559
force-micr-font-print	Actual destination	"force-micr-font-print" on page 560
force-printer-setup	Actual destination	"force-destination-setup" on page 559
form-definition	Actual destination Default document Document	"form-definition" on page 560 "form-definition" on page 727 "form-definition" on page 727

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
form-length	Default document Document	"form-length" on page 728 "form-length" on page 728
form-length-range-supported	Actual destination Logical destination	"form-length-range-supported" on page 561 "form-length-range-supported" on page 884
format	Default document Document	"document-format" on page 715 "document-format" on page 715
formatted-job-ticket-content	Job	"formatted-job-ticket-content (Job Only)" on page 811
forms	Default job Job	"forms" on page 811 "forms" on page 811
forms-available	Server	"forms-available" on page 938
forms-ready	Actual destination	"forms-ready" on page 562
global-id	Job	"job-identifier (Job Only)" on page 821
halftone	Default document Document	"halftone" on page 729 "halftone" on page 729
halftones-supported	Actual destination	"halftones-supported" on page 563
hold	Default job Job	"job-hold" on page 820 "job-hold" on page 820
hostname	Server	"server-hostname" on page 955
hot-folder-directory	Logical destination	"hot-folder-directory" on page 885
hot-folder-polling-interval	Logical destination	"hot-folder-polling-interval" on page 886
hot-folder-polling-method	Logical destination	"hot-folder-polling-method" on page 886
i-p-address	Server	"server-ip-address" on page 955
ip-address	Server	"server-ip-address" on page 955
image-fit	Default document Document	"image-fit" on page 737 "image-fit" on page 737
image-fit-supported	Actual destination	"image-fit-supported" on page 571
image-length	Actual destination Default document Document	"image-length" on page 572 "image-length" on page 738 "image-length" on page 738

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
image-out-format	Default document Document	"image-out-format" on page 739 "image-out-format" on page 739
image-out-formats-supported	Actual destination Logical destination	"image-out-formats-supported" on page 573 "image-out-formats-supported" on page 887
image-width	Actual destination Default document Document	"image-width" on page 574 "image-width" on page 740 "image-width" on page 740
initial-value-document	Document	"initial-value-document (Document Only)" on page 741
initial-value-document-identifier	Default document identifier	"initial-value-document-identifier (Default Document Only)" on page 742
initial-value-job	Job	"initial-value-job (Job Only)" on page 812
initial-value-job-identifier	Default job identifier	"initial-value-job-identifier (Default Job Only)" on page 812
input-color-management-resources	Default document Document	"input-color-management-resources" on page 742 "input-color-management-resources" on page 742
input-data-user-exit	Actual destination	"input-data-user-exit" on page 575
input-exit	Default document Document	"input-exit" on page 743 "input-exit" on page 743
input-tray-select	Default document Document	"input-tray-select" on page 744 "input-tray-select" on page 744
input-trays-medium	Actual destination	"input-trays-medium" on page 576
input-trays-supported	Actual destination Logical destination	"input-trays-supported" on page 578 "input-trays-supported" on page 888
intervening-jobs	Job	"intervening-jobs (Job Only)" on page 813
interrupt-message-page-enabled	Actual destination	"interrupt-message-page-enabled" on page 578
interrupt-message-page-form-definition	Actual destination	"interrupt-message-page-form-definition" on page 579
interrupt-message-page-edge-marks	Actual destination	"interrupt-message-page-edge-marks" on page 580
intervention-timer	Actual destination	"intervention-timer" on page 580
ip-address	Server	"server-ip-address" on page 955

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
jde-jdl	Document Default document	"jde-jdl" on page 744 "jde-jdl" on page 744
job-attributes-supported	Actual destination Server	"job-attributes-supported" on page 581 "job-attributes-supported" on page 939
job-batch	Default job Job	"job-batch" on page 813 "job-batch" on page 813
job-batches-ready	Actual destination	"job-batches-ready" on page 582
job-client-id	Job	"job-client-id (Job Only)" on page 814
job-comment	Default job Job	"job-comment" on page 814 "job-comment" on page 814
job-complexity	Default job Job	"job-complexity" on page 815 "job-complexity" on page 815
job-copies-completed	Job	"job-copies-completed (Job Only)" on page 816
job-deadline-time	Job	"job-deadline-time (Job Only)" on page 816
job-discard-time	Job	"job-discard-time (Job Only)" on page 817
job-end-message	Default job Job	"job-end-message" on page 817 "job-end-message" on page 817
job-finishing	Default job Job	"job-finishing" on page 818 "job-finishing" on page 818
job-finishings-supported	Actual destination	"job-finishings-supported" on page 582
job-hold	Default job Job	"job-hold" on page 820 "job-hold" on page 820
job-identifier	Job	"job-identifier (Job Only)" on page 821
job-log	Job	"job-log (Job Only)" on page 821
job-media-sheet-count	Job	"job-media-sheet-count (Job Only)" on page 822
job-message-from-administrator	Job	"job-message-from-administrator (Job Only)" on page 822
job-message-to-operator	Default job Job	"job-message-to-operator" on page 823 "job-message-to-operator" on page 823

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
job-name	Default job Job	"job-name" on page 823 "job-name" on page 823
job-originator	Job	"job-originator (Job Only)" on page 824
job-owner	Job	"job-owner (Job Only)" on page 825
job-page-count	Job	"job-page-count (Job Only)" on page 825
job-print-after	Job	"job-print-after (Job Only)" on page 826
job-priority	Default job Job	"job-priority" on page 827 "job-priority" on page 827
job-result-set-delivery-methods-supported	Actual destination	"job-result-set-delivery-methods-supported" on page 584
job-retain-until	Job	"job-retain-until (Job Only)" on page 828
job-retention-period	Default job Job	"job-retention-period" on page 828 "job-retention-period" on page 828
job-retry-count-limit	Actual destination	"job-retry-count-limit" on page 584
job-retry-interval	Actual destination	"job-retry-interval" on page 585
job-rip-action	Default job Job	"job-rip-action" on page 829 "job-rip-action" on page 829
job-rip-actions-supported	Actual destination	"job-rip-actions-supported" on page 586
job-ripped-by-server	Default job Job	"job-ripped-by-server" on page 830 "job-ripped-by-server" on page 830
job-scheduling	Default job Job	"job-scheduling" on page 833 "job-scheduling" on page 833
job-size	Job	"total-job-octets (Job Only)" on page 860
job-size-range-ready	Actual destination	"job-size-range-ready" on page 587
job-size-range-supported	Actual destination Logical destination	"job-size-range-supported" on page 588 "job-size-range-supported" on page 889
job-start-message	Default job Job	"job-start-message" on page 834 "job-start-message" on page 834

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job-start-wait	Default job Job	"job-start-wait" on page 835 "job-start-wait" on page 835
job-start-wait-supported	Actual destination	"job-start-wait-supported" on page 589
job-state	Job	"current-job-state (Job Only)" on page 800
job-state-reasons	Job	"job-state-reasons (Job Only)" on page 836
job-state-reasons-supported	Server	"job-state-reasons-supported" on page 940
job-states-supported	Server	"job-states-supported" on page 941
job-submission-complete	Job	"job-submission-complete (Job Only)" on page 837
job-submission-timer	Server	"job-submission-timer" on page 942
job-ticket-content	Job	"formatted-job-ticket-content (Job Only)" on page 811
job-terminate-message-count	Default document Document	"job-terminate-message-count" on page 745 "job-terminate-message-count" on page 745
jog-between-job-copies	Default document Document	"jog-between-job-copies" on page 746 "jog-between-job-copies" on page 746
jog-between-jobs	Actual destination	"jog-between-jobs" on page 590
large-file-enabled	Actual destination	"large-file-enabled" on page 590
last-accessor	Job	"name-of-last-accessor (Job Only)" on page 842
last-modifier	Job	"name-of-last-accessor (Job Only)" on page 842
list-of-managers	Actual destination Default document Default job Logical destination Queue Server	"list-of-managers" on page 591 "list-of-managers (Default Document Only)" on page 746 "list-of-managers (Default Job Only)" on page 838 "list-of-managers" on page 890 "list-of-managers" on page 915 "list-of-managers" on page 943
locale	Server	"locale" on page 943
locations	Actual destination Logical destination	"destination-locations" on page 517 "destination-locations" on page 878
locations-requested	Default job Job	"destination-locations-requested" on page 804 "destination-locations-requested" on page 804

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log-accounting data	Actual destination Server	"log-accounting-data" on page 592 "log-accounting-data" on page 944
logged-onto-sap	Actual destination	"logged-onto-sap" on page 593
log-address	Log	"log-address" on page 864
log-backup-number	Log	"log-backup-number" on page 864
log-identifier	Log	"log-identifier" on page 865
log-messages	Log	"log-messages" on page 865
log-severity	Log	"log-severity" on page 865
log-size	Log	"log-size" on page 866
log-trace-groups	Log	"log-trace-groups" on page 867
log-type	Log	"log-type" on page 867
log-wrap	Log	"log-wrap" on page 868
logical-destinations-assigned	Actual destination Queue	"logical-destinations-assigned" on page 593 "logical-destinations-assigned" on page 915
logical-destinations-ready	Default destination ready (Default Document Only) Default job-destinations-ready (Default Job Only) Queue Server	"logical-destinations-ready (Default Document Only)" on page 747 "logical-destinations-ready (Default Job Only)" on page 839 "logical-destinations-ready" on page 915 "logical-destinations-ready" on page 945
logical-destinations-supported	Server	"logical-destinations-supported" on page 945
logical-printer	Logical destination	"destination-name" on page 879
logical-printer-requested	Job	"destination-name-requested (Job Only)" on page 806
logical-printers-assigned	Queue	"logical-destinations-assigned" on page 915
logical-printers-ready	Default destination ready (Default Document Only) Default job-destinations-ready (Default Job Only) Queue Server	"logical-destinations-ready (Default Document Only)" on page 747 "logical-destinations-ready (Default Job Only)" on page 839 "logical-destinations-ready" on page 915 "logical-destinations-ready" on page 945
logical-printers-supported	Server	"logical-destinations-supported" on page 945
lower-memory-usage-exit	Server	"lower-memory-usage-exit (AIX only)" on page 946

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
lower-memory-usage-threshold	Server	"lower-memory-usage-threshold (AIX only)" on page 947
managers	Actual destination Default list of managers Default job Logical destination Queue Server	"list-of-managers" on page 591 "list-of-managers (Default Document Only)" on page 746 "list-of-managers (Default Job Only)" on page 838 "list-of-managers" on page 890 "list-of-managers" on page 915 "list-of-managers" on page 943
maximum-concurrent-jobs	Actual destination	"maximum-concurrent-jobs" on page 594
maximum-copies-supported	Actual destination Logical destination	"maximum-copies-supported" on page 595 "maximum-copies-supported" on page 891
maximum-fonts-to-keep	Actual destination	"maximum-fonts-to-keep" on page 596
maximum-messages-printed	Default document Document	"maximum-messages-printed" on page 748 "maximum-messages-printed" on page 748
maximum-non-raster-rips	Server	"maximum-non-raster-rips" on page 947
maximum-overlays-to-keep	Actual destination	"maximum-overlays-to-keep" on page 597
maximum-presentation-object-containers-to-keep	Actual destination	"maximum-presentation-object-containers-to-keep" on page 597
maximum-raster-rips	Server	"maximum-raster-rips" on page 948
maximum-segments-to-keep	Actual destination	"maximum-segments-to-keep" on page 598
maximum-transform-pages-ahead	Default document Document	"maximum-transform-pages-ahead" on page 749 "maximum-transform-pages-ahead" on page 749
media-ready	Actual destination	"media-ready" on page 598
media-sheet-count	Job	"job-media-sheet-count (Job Only)" on page 822
media-sheets-completed	Job	"media-sheets-completed (Job Only)" on page 840
media-supported	Actual destination Logical destination	"media-supported" on page 600 "media-supported" on page 891
medium-color	Medium	"medium-color" on page 902
medium-dimensions	Medium	"medium-dimensions" on page 902
medium-form-parts	Medium	"medium-form-parts" on page 903

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
medium-holes-count	Medium	"medium-holes-count" on page 904
medium-identifier	Medium	"medium-identifier" on page 904
medium-sides	Medium	"medium-sides" on page 905
medium-size	Medium	"medium-size" on page 906
medium-type	Medium	"medium-type" on page 906
medium-weight	Medium	"medium-weight" on page 907
message	Actual destination Default document message (Default Document Only) Default job Logical destination Medium Queue Server	"message" on page 602 "message (Default Document Only)" on page 749 "message (Default Job Only)" on page 840 "message" on page 892 "message" on page 908 "message" on page 916 "message" on page 948
message-font-type	Actual destination	"message-font-type" on page 602
message-form-definition	Actual destination	"message-form-definition" on page 603
message-from-administrator	Job	"job-message-from-administrator (Job Only)" on page 822
message-to-operator	Default job Job	"job-message-to-operator" on page 823 "job-message-to-operator" on page 823
mid-release-timer	Actual destination	"mid-release-timer" on page 603
mid-support-enabled	Actual destination	"mid-support-enabled" on page 604
model	Actual destination Logical destination	"destination-model" on page 518 "destination-model" on page 879
models-requested	Default job Job	"destination-models-requested" on page 805 "destination-models-requested" on page 805
modification-time	Job	"modification-time (Job Only)" on page 841
modify-individual-document-supported	Server	"modify-individual-document-supported" on page 948
multiple-documents-supported	Server	"multiple-documents-supported" on page 949
mvs-class	Default document Document	"mvs-class" on page 749 "mvs-class" on page 749
mvs-destination	Default document Document	"mvs-destination" on page 750 "mvs-destination" on page 750

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
mvs-forms	Default document Document	"mvs-forms" on page 750 "mvs-forms" on page 750
mvs-segment-id	Default document Document	"mvs-segment-id" on page 751 "mvs-segment-id" on page 751
name	Default job Job	"job-name" on page 823 "job-name" on page 823
name-of-last-accessor	Job	"name-of-last-accessor (Job Only)" on page 842
name-text	Default document Document	"name-text" on page 751 "name-text" on page 751
new-job-identifier	Job	"new-job-identifier (Job Only)" on page 842
new-line-option	Default document Document	"new-line-option" on page 752 "new-line-option" on page 752
new-line-option-data-encoding	Default document Document	"new-line-option-data-encoding" on page 753 "new-line-option-data-encoding" on page 753
node-id-text	Default document Document	"node-id-text" on page 754 "node-id-text" on page 754
non-process-runout-timer	Actual destination	"non-process-runout-timer" on page 605
notification-delivery-methods-supported	Server	"notification-delivery-methods-supported" on page 949
notification-profile	Actual destination Default job Job Logical destination Queue Server	"notification-profile" on page 606 "notification-profile" on page 843 "notification-profile" on page 843 "notification-profile" on page 892 "notification-profile" on page 917 "notification-profile" on page 950
notify-operator	Actual destination Queue	"notify-operator" on page 608 "notify-operator" on page 919
number-of-documents	Job	"number-of-documents (Job Only)" on page 845
number-up	Default document Document	"number-up" on page 754 "number-up" on page 754
number-up-supported	Actual destination	"number-up-supported" on page 609

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
object-class	Actual destination Auxiliary sheet Default document Document Default job Job Log Logical destination Medium Queue Resource context Server Server	"object-class" on page 610 "object-class" on page 680 "object-class" on page 755 "object-class" on page 755 "object-class" on page 846 "object-class" on page 846 "object-class" on page 868 "object-class" on page 894 "object-class" on page 908 "object-class" on page 920 "object-class" on page 925 "object-class" on page 952 "object-class" on page 967
object-classes-supported	Server	"object-classes-supported" on page 952
octet-count	Document	"octet-count (Document Only)" on page 756
octets-completed	Job	"octets-completed (Job Only)" on page 846
offset-stacking-available	Actual destination	"offset-stacking-available" on page 611
offset-stacking-between-jobs	Default document Document	"offset-stacking-between-job-copies" on page 756 "offset-stacking-between-job-copies" on page 756
operators	Actual destination Queue	"notify-operator" on page 608 "notify-operator" on page 919
optimize-for-multiple-copies	Actual destination Default job Job	"optimize-for-multiple-copies" on page 611 "optimize-for-multiple-copies" on page 847 "optimize-for-multiple-copies" on page 847
orientation	Default document Document	"content-orientation" on page 703 "content-orientation" on page 703
orientations-supported	Actual destination Logical destination	"content-orientations-supported" on page 510 "content-orientations-supported" on page 874
originating-company-text	Default document Document	"originating-company-text" on page 756 "originating-company-text" on page 756
originator	Job	"job-originator (Job Only)" on page 824
other-options	Actual destination Default document Document	"destination-pass-through" on page 521 "destination-pass-through" on page 712 "destination-pass-through" on page 712
other-transform-options	Default document Document Transform	"other-transform-options" on page 757 "other-transform-options" on page 757 "other-transform-options" on page 967

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output-appearance	Default document Document	"output-appearance" on page 757 "output-appearance" on page 757
output-appearances-supported	Actual destination	"output-appearances-supported" on page 613
output-bin	Actual destination Default document Document	"output-bin" on page 614 "output-bin" on page 758 "output-bin" on page 758
output-bin-numbers	Actual destination	"output-bin-numbers" on page 614
output-bins-supported	Actual destination	"output-bins-supported" on page 616
output-color-management-resource	Actual destination Default document Document	"output-color-management-resource" on page 616 "output-color-management-resource" on page 759 "output-color-management-resource" on page 759
output-color-management-resource-inline	Default document Document	"output-color-management-resource-inline" on page 760 "output-color-management-resource-inline" on page 760
output-color-management-resource-tag	Default document Document	"output-color-management-resource-tag" on page 760 "output-color-management-resource-tag" on page 760
output-data-user-exit	Actual destination	"output-data-user-exit" on page 617
output-document-format	Transform	"output-document-format" on page 970
output-format	Default document Document	"output-format" on page 761 "output-format" on page 761
output-format-supported	Actual destination	"output-format-supported" on page 618
overlay	Actual destination Default document Document	"overlay" on page 619 "overlay" on page 763 "overlay" on page 763
overlay-back	Default document Document	"overlay-back" on page 764 "overlay-back" on page 764
overlay-front	Default document Document	"overlay-front" on page 764 "overlay-front" on page 764
owner	Job	"job-owner (Job Only)" on page 825
page-count	Document	"page-count (Document Only)" on page 765
page-definition	Default document Document	"page-definition" on page 766 "page-definition" on page 766

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
page-media-select	Default document Document	"page-media-select" on page 766 "page-media-select" on page 766
page-select	Document	"page-select (Document Only)" on page 766
page-select-supported	Actual destination Logical destination	"page-select-supported" on page 619 "page-select-supported" on page 894
pages-completed	Job	"pages-completed (Job Only)" on page 848
pcl-server-address	Actual destination	"pcl-server-address" on page 620
pcl-server-port	Actual destination	"pcl-server-port" on page 621
physical-printer	Actual destination	"destination-name" on page 519
physical-printers-assigned	Queue	"actual-destinations-assigned" on page 909
physical-printers-ready	Queue Server	"actual-destinations-ready" on page 909 "actual-destinations-ready" on page 928
physical-printers-requested	Default job Job	"actual-destinations-requested" on page 797 "actual-destinations-requested" on page 797
physical-printers-supported	Server	"actual-destinations-supported" on page 928
plex	Actual destination Default document Document	"plex" on page 621 "plex" on page 768 "plex" on page 768
plexes-supported	Actual destination Logical destination	"plexes-supported" on page 622 "plexes-supported" on page 895
position-in-queue	Job	"intervening-jobs (Job Only)" on page 813
postscript-server-address	Actual destination	"postscript-server-address" on page 623
postscript-server-port	Actual destination	"postscript-server-port" on page 624
presentation-fidelity-problem-reported	Actual destination	"presentation-fidelity-problem-reported" on page 624
presentation-object-containers-extraction-mode	Actual destination	"presentation-object-container-extraction-mode" on page 625
previous-job-state	Job	"previous-job-state (Job Only)" on page 849
previous-state	Job	"previous-job-state (Job Only)" on page 849

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
print-after	Job	“job-print-after (Job Only)” on page 826
print-edge-marks	Actual destination	“print-edge-marks” on page 626
print-qualities-supported	Actual destination Logical destination	“print-qualities-supported” on page 626 “print-qualities-supported” on page 895
print-quality	Default document Document	“print-quality” on page 769 “print-quality” on page 769
print-queue	Actual destination	“print-queue-name” on page 627
print-queue-name	Actual destination	“print-queue-name” on page 627
printer	Actual destination Logical destination	“destination-name” on page 519 “destination-name” on page 879
printer-associated-printers	Logical destination	“destination-associated-destinations” on page 877
printer-command	Actual destination	“destination-command” on page 515
printer-data-stream	Actual destination	“destination-data-stream” on page 516
printer-end-sheet	Actual destination	“printer-end-sheet” on page 628
printer-escape-codes	Actual destination	“printer-escape-codes” on page 629
printer-initial-value-document	Document Logical destination	“destination-initial-value-document (Document Only)” on page 711 “destination-initial-value-document” on page 877
printer-initial-value-job	Job Logical destination	“destination-initial-value-job (Job Only)” on page 804 “destination-initial-value-job” on page 878
printer-locations	Actual destination Logical destination	“destination-locations” on page 517 “destination-locations” on page 878
printer-locations-requested	Default job Job	“destination-locations-requested” on page 804 “destination-locations-requested” on page 804
printer-memory	Actual destination	“printer-memory” on page 630
printer-model	Actual destination Logical destination	“destination-model” on page 518 “destination-model” on page 879
printer-models-requested	Default job Job	“destination-models-requested” on page 805 “destination-models-requested” on page 805

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
printer-name	Actual destination Logical destination	"destination-name" on page 519 "destination-name" on page 879
printer-name-requested	Default job destination Job "destination-name-requested (Job Only)"	"destination-name-requested (Job Only)" on page 806 "destination-name-requested (Job Only)" on page 806
printer-needs-attention-time	Actual destination	"destination-needs-attention-time" on page 519
printer-needs-key-operator-attention-time	Actual destination	"destination-needs-key-operator-attention-time" on page 520
printer-pass-through	Actual destination Default document Document	"destination-pass-through" on page 521 "destination-pass-through" on page 712 "destination-pass-through" on page 712
printer-realization	Actual destination Logical destination	"destination-realization" on page 522 "destination-realization" on page 880
printer-register-threshold	Actual destination	"destination-register-threshold" on page 522
printer-release-timer	Actual destination	"destination-release-timer" on page 523
printer-requested	Default job destination Job "destination-name-requested (Job Only)"	"destination-name-requested (Job Only)" on page 806 "destination-name-requested (Job Only)" on page 806
printer-resolutions-ready	Actual destination	"printer-resolutions-ready" on page 631
printer-resolutions-supported	Actual destination	"printer-resolutions-supported" on page 632
printer-separator-sheet	Actual destination	"printer-separator-sheet" on page 633
printer-start-sheet	Actual destination	"printer-start-sheet" on page 634
printer-state	Actual destination	"destination-state" on page 524
printer-states-supported	Server	"destination-states-supported" on page 932
printer-tcpip-internet-address	Actual destination	"destination-tcpip-internet-address" on page 526
printer-tcpip-port-number	Actual destination	"destination-tcpip-port-number" on page 527
printer-timeout-period	Actual destination	"printer-timeout-period" on page 636
printers-assigned	Job	"destinations-assigned (Job Only)" on page 807
printers-ready	Logical destination	"destinations-ready" on page 881
printers-used	Job	"destinations-used (Job Only)" on page 807

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problem-child	Server	"problem-child" on page 953
problem-message	Actual destination	"problem-message" on page 636
processing-time	Job	"processing-time (Job Only)" on page 851
programmer-text	Default document Document	"programmer-text" on page 769 "programmer-text" on page 769
promotion-time	Job	"promotion-time" on page 852
psf-exit-form-definition	Auxiliary sheet	"psf-exit-form-definition" on page 680
psf-exit-page-mark	Auxiliary sheet	"psf-exit-page-mark" on page 681
psf-exit-program-name	Auxiliary sheet	"psf-exit-program-name" on page 681
psf-post-print-accounting-program-name	Auxiliary sheet	"psf-post-print-accounting-program-name" on page 685
psf-tray-characteristics	Actual destination	"psf-tray-characteristics" on page 637
public-context-presentation-object-container	Actual destination	"public-context-presentation-object-container" on page 641
qualities-supported	Actual destination Logical destination	"print-qualities-supported" on page 626 "print-qualities-supported" on page 895
queue-assigned	Job	"queue-assigned (Job Only)" on page 852
queue-backlog	Queue	"queue-backlog" on page 921
queue-name	Queue	"queue-name" on page 921
queue-position	Job	"intervening-jobs (Job Only)" on page 813
queue-state	Queue	"queue-state" on page 922
queues-supported	Server	"queues-supported" on page 953
reasons	Job	"job-state-reasons (Job Only)" on page 836
record-count	Default Job Job	"record-count" on page 853 "record-count" on page 853
register-threshold	Actual destination	"destination-register-threshold" on page 522
registered-with-spooler	Actual destination	"registered-with-spooler" on page 642

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remote-queue	Actual destination	iprrl_pptrq.dita#iprrl_pptrq
requeue-failed-jobs	Queue	“requeue-failed-jobs” on page 922
required-resources-not-ready	Job	“required-resources-not-ready (Job Only)” on page 854
required-resources-not-supported	Job	“required-resources-not-supported (Job Only)” on page 854
resource-context	Actual destination Default document Document	“resource-context” on page 643 “resource-context” on page 770 “resource-context” on page 770
resource-context-font	Actual destination Default document Document	“resource-context-font” on page 644 “resource-context-font” on page 772 “resource-context-font” on page 772
resource-context-form-definition	Actual destination Default document Document	“resource-context-form-definition” on page 646 “resource-context-form-definition” on page 773 “resource-context-form-definition” on page 773
resource-context-identifier	Resource context	“resource-context-identifier” on page 926
resource-context-overlay	Actual destination Default document Document	“resource-context-overlay” on page 647 “resource-context-overlay” on page 774 “resource-context-overlay” on page 774
resource-context-page-definition	Actual destination Default document Document	“resource-context-page-definition” on page 648 “resource-context-page-definition” on page 775 “resource-context-page-definition” on page 775
resource-context-page-segment	Actual destination Default document Document	“resource-context-page-segment” on page 649 “resource-context-page-segment” on page 776 “resource-context-page-segment” on page 776
resource-context-presentation-object-container	Actual destination Default document Document	“resource-context-presentation-object-container” on page 650 “resource-context-presentation-object-container” on page 777 “resource-context-presentation-object-container” on page 777
resource-context-user	Default document Document	“resource-context-user” on page 778 “resource-context-user” on page 778
resource-exit	Default document Document	“resource-exit” on page 779 “resource-exit” on page 779
results-profile	Default job Job	“results-profile” on page 855 “results-profile” on page 855
retained-time	Job	“results-profile” on page 855

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retained-forever	Default job Job	"retain-forever" on page 858 "retain-forever" on page 858
retention-period	Default job Job	"job-retention-period" on page 828 "job-retention-period" on page 828
reuse-inline-presentation-object-container	Actual destination "reuse-inline-presentation-object-container"	on page 652
reverse-page-order	Actual destination Default document Document	"reverse-page-order" on page 652 "reverse-page-order" on page 780 "reverse-page-order" on page 780
room-text	Default document Document	"room-text" on page 781
sap-gateway-host	Actual destination	"sap-gateway-host" on page 653
sap-gateway-service	Actual destination	"sap-gateway-service" on page 654
sap-logon-client	Actual destination	"sap-logon-client" on page 654
sap-logon-password	Actual destination	"sap-logon-password" on page 655
sap-logon-userid	Actual destination	"sap-logon-userid" on page 655
sap-program-id	Actual destination	"sap-program-id" on page 656
sap-system-hostname	Actual destination	"sap-system-hostname" on page 656
sap-system-name	Actual destination	"sap-system-name" on page 657
sap-system-number	Actual destination	"sap-system-number" on page 657
save-rip-files	Server	"save-rip-files" on page 953
scanner-correction	Default document Document	"scanner-correction" on page 781 "scanner-correction" on page 781
scanner-corrections-supported	Actual destination	"scanner-corrections-supported" on page 658
scheduler-sort-primary-order	Actual destination	"scheduler-sort-primary-order" on page 658
scheduler-sort-secondary-order	Actual destination	"scheduler-sort-secondary-order" on page 659
schedulers-supported	Actual destination	"schedulers-supported" on page 660
screen-frequencies-supported	Actual destination	"screen-frequencies-supported" on page 661

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screen-frequency	Default document Document	"screen-frequency" on page 782
security-level	Server	"security-level" on page 954
segment-file-size	Default document Document	"segment-file-size" on page 783 "segment-file-size" on page 783
separator-sheets-supported	Actual destination	"separator-sheets-supported" on page 661
sequence-number	Document	"document-sequence-number (Document Only)" on page 717
server-hostname	Server	"server-hostname" on page 955
server-ip-address	Server	"server-ip-address" on page 955
server-locale	Transform	"server-locale" on page 971
server-name	Server	"server-name" on page 956
server-state	Server	"server-state" on page 956
shared-formdef	Default document Document	"shared-formdef" on page 783 "shared-formdef" on page 783
shared-printer-name	Actual destination	"shared-printer-name" on page 662
shift-out-shift-in	Default document Document	"shift-out-shift-in" on page 784 "shift-out-shift-in" on page 784
sides	Actual destination Default document Document	"sides" on page 663 "sides" on page 785 "sides" on page 785
sides-supported	Actual destination Logical destination	"sides-supported" on page 664 "sides-supported" on page 896
smtp-server-host	Server	"smtp-server-host" on page 956
smtp-server-port-number	Server	"smtp-server-port" on page 957
snmp-active	Actual destination	"snmp-active" on page 665
snmp-aix-printer-models	Server	"snmp-aix-printer-models" on page 958
snmp-community-name	Actual destination	"snmp-community-name" on page 665

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snmp-device-conditions	Actual destination	“snmp-device-conditions” on page 666
snmp-discovery-during-stamp	Server	“snmp-discovery-during-startup” on page 958
snmp-normal-poll-interval	Server	“snmp-normal-poll-interval” on page 959
snmp-problem-poll-interval	Server	“snmp-problem-poll-interval” on page 959
snmp-retry-count	Actual destination	“snmp-retry-count” on page 667
snmp-timeout	Actual destination	“snmp-timeout” on page 668
snmp-write-community-name	Actual destination	“snmp-write-community-name” on page 669
start-message	Default job Job	“job-start-message” on page 834 “job-start-message” on page 834
start-message-supported	Actual destination Logical destination	“start-message-supported” on page 669 “start-message-supported” on page 897
start-on-new-sheet	Default document Document	“start-on-new-sheet” on page 786 “start-on-new-sheet” on page 786
start-sheets-supported	Actual destination	“start-sheets-supported” on page 670
started-printing-time	Job	“started-printing-time (Job Only)” on page 858
state-reasons	Job	“job-state-reasons (Job Only)” on page 836
subject-text	Default document Document	“subject-text” on page 787 “subject-text” on page 787
submission-time	Job	“submission-time (Job Only)” on page 859
submitter-ip-address	Job	“submitter-ip-address (Job Only)” on page 860
table-reference-characters	Default document Document	“table-reference-characters” on page 787 “table-reference-characters” on page 787
table-reference-characters-supported	Actual destination Logical destination	“table-reference-characters-supported” on page 671 “table-reference-characters-supported” on page 898
terminating-tranform	Transform	“terminating-transform” on page 972
ticket-content	Job	“formatted-job-ticket-content (Job Only)” on page 811
timeout-period	Actual destination	“printer-timeout-period” on page 636

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title-text	Default document Document	"title-text" on page 788 "title-text" on page 788
total-job-octets	Job	"total-job-octets (Job Only)" on page 860
transfer-method	Document	"transfer-method (Document Only)" on page 788
transfer-methods-supported	Server	"transfer-methods-supported" on page 960
transform-identifier	Transform	"transform-identifier" on page 973
transform-library	Transform	"transform-library" on page 973
transform-manager-host	Server	"transform-manager-host" on page 960
transform-manager-port	Server	"transform-manager-port" on page 961
transform-message-file-name	Default document Document	"transform-message-file-name" on page 789 "transform-message-file-name" on page 789
transform-output-file-name	Default document Document	"transform-output-file-name" on page 790 "transform-output-file-name" on page 790
transform-sequence	Actual destination	"transform-sequence" on page 672
type	Document	"document-type (Document Only)" on page 718
upper-memory-usage-exit	Server	"upper-memory-usage-exit (AIX only)" on page 961
upper-memory-usage-threshold	Server	"upper-memory-usage-threshold (AIX only)" on page 962
use-snmp	Actual destination	"use-snmp" on page 672
user-id-text	Default document Document	"user-id-text" on page 790 "user-id-text" on page 790
user-locale	Job	"user-locale (Job Only)" on page 861
user-name	Job	"user-name (Job Only)" on page 861
wait-for-job-completion	Actual destination	"wait-for-job-completion" on page 673
wait-for-job-completion-snmp-timeout	Actual destination	"wait-for-job-completion-snmp-timeout" on page 674
warning-message	Actual destination	"warning-message" on page 675

<i>Attribute</i>	<i>Objects</i>	<i>See Page</i>
web-server-host	Server	"web-server-host" on page 963
web-server-port	Server	"web-server-port" on page 963
x-image-shift	Default document Document	"x-image-shift" on page 791 "x-image-shift" on page 791
x-image-shift-back	Default document Document	"x-image-shift-back" on page 792 "x-image-shift-back" on page 792
x-image-shift-range-supported	Actual destination Logical destination	"x-image-shift-range-supported" on page 675 "x-image-shift-range-supported" on page 898
xsl-style-sheet	Actual destination Default document Document	"xsl-style-sheet" on page 676 "xsl-style-sheet" on page 793 "xsl-style-sheet" on page 793
y-image-shift	Default document Document	"y-image-shift" on page 793 "y-image-shift" on page 793
y-image-shift-back	Default document Document	"y-image-shift-back" on page 794 "y-image-shift-back" on page 794
y-image-shift-range-supported	Actual destination Logical destination	"y-image-shift-range-supported" on page 677 "y-image-shift-range-supported" on page 899

Appendix B. Migrating PSF for AIX job script keywords to InfoPrint equivalents

Table 24 and Table 25 on page 1037 list the PSF for AIX job script keywords that the **jsmigr** utility (see “jsmigr utility: migrates PSF for AIX job scripts in InfoPrint Manager for AIX” on page 200) migrates to InfoPrint document and job attributes, or to flags and arguments of the **pdpr** command.

Notes:

1. See “jsmigr utility: migrates PSF for AIX job scripts in InfoPrint Manager for AIX” on page 200 for notes on migration.
2. Keywords not listed in this table have no equivalent.

Table 24. PSF for AIX keywords used in job script files and InfoPrint equivalents

<i>PSF Keyword</i>	<i>InfoPrint Attribute, Flag, or Argument</i>
a_Cc a_Cctype	carriage-control-type
Note: cc and cctype are examined together to generate carriage-control-type. If jsmigr finds cctype before cc, it assumes the default value of yes for cc.	
a_Chars	chars
a_Fileformat	new-line-option
a_Imageout	image-out-format
a_InpExit	input-exit
a_OtherOptions	other-transform-options
a_Pagedef	page-definition
a_Parmdd	Attributes file
a_Pdeflib	resource-context-page-definition
a_Prmode	shift-out-shift-in
a_Trnc	table-reference-characters
db_euc db_language	default-character-mapping
Note: db_euc and db_language must be used together to generate default-character-mapping.	
e_ConsoleMsg	job-start-message job-start-wait
e_FileMsg	job-start-message job-start-wait
e_Notify	notification-profile (delivery-method component)
e_PrintQueue	-p flag of pdpr command
e_Priority	job-priority

Table 24. PSF for AIX keywords used in job script files and InfoPrint equivalents (continued)

<i>PSF Keyword</i>	<i>InfoPrint Attribute, Flag, or Argument</i>
i_FileNames	Job scripts invoked by this keyword (extension .js) are migrated to attributes files invoked with the -X flag of the pdpr command. Print files are migrated to arguments of the pdpr command in the pdpr script.
i_Fileformat	new-line-option
i_Format	No equivalent
i_InputDevice	-f, -T, or - flag of pdpr command
i_OutExit	No equivalent
i_PgsAhead	maximum-transform-pages-ahead
JsFileType	document-format
oa_Formdef	form-definition
oa_SrchAFP	resource-context
oa_SrchFd	resource-context-form-definition
oa_SrchOvly	resource-context-overlay
oa_SrchPs	resource-context-page-segment
oa_SrchFO	resource-context-font
oa_SrchSf	No equivalent
o_Account	account-text
o_Address1	address1-text
o_Address2	address2-text
o_Address3	address3-text
o_Address3	address3-text
o_Bin	destination-pass-through to ainbe
o_Building	building-text
o_Codeset	default-character-mapping
o_Copies	results-profile (job-copies component)
o_DataCk	data-fidelity-problem-reported
o_Department	department-text
o_Distribution	results-profile (delivery-address component)
o_Duplex	plex sides
o_Header	auxiliary-sheet-selection
Note: o_Header , o_Separator , and o_Trailer are examined together to generate auxiliary-sheet-selection.	
o_JobName	job-name
o_MsgCount	maximum-messages-printed
o_Name	name-text
o_Nodeid	node-id-text
o_Outbin	output-bin
o_Overlay	overlay

Table 24. PSF for AIX keywords used in job script files and InfoPrint equivalents (continued)

<i>PSF Keyword</i>	<i>InfoPrint Attribute, Flag, or Argument</i>
o_PassThru	mvs-class mvs-dest mvs-forms mvs-segment-id
o_Programmer	programmer-text
o_Room	room-text
o_Separator	auxiliary-sheet-selection
Note: o_Header, o_Separator, and o_Trailer are examined together to generate auxiliary-sheet-selection.	
o_SetupFile	No equivalent
o_Title	title-text
o_Trailer	auxiliary-sheet-selection
Note: o_Header, o_Separator, and o_Trailer are examined together to generate auxiliary-sheet-selection.	
o_Userid	user-id-text
o_Xoffset	x-image-shift
o_Yoffset	y-image-shift
p_Config	Attributes file other-transform-options
p_Length	image-length
p_OtherOptions	other-transform-options
p_OutputType	image-out-format
Note: There is no equivalent for some values of p_OutputType.	
p_Resolution	default-printer-resolution
p_Width	image-width
s_SegSize	segment-file-size

Table 25. PSF for AIX keywords used in parmdd files

<i>PSF Keyword</i>	<i>InfoPrint Attribute, Flag, or Argument</i>
cc cctype	carriage-control-type
Note: cc and cctype are examined together to generate carriage-control-type. If jsmigr finds cctype before cc, it assumes the default value of yes for cc.	
chars	chars
fdeflib	resource-context-form-definition
fileformat	new-line-option
fontlib	resource-context-font
formdef	form-definition
imageout	image-out-format
inpexit	input-exit

Table 25. PSF for AIX keywords used in parmdd files (continued)

<i>PSF Keyword</i>	<i>InfoPrint Attribute, Flag, or Argument</i>
inputdd	No equivalent
msgdd	transform-message-file-name
outexit	No equivalent
outputdd	transform-output-file-name
ovlylib	resource-context-overlay
pagedef	page-definition
parmdd	Attributes file
pdeflib	resource-context-page-definition
prmode	shift-out-shift-in
pseglib	resource-context-page-segment
resexit	resource-exit
reslib	resource-context
trc	table-reference-characters
userlib	resource-context-user

Appendix C. Job validation and scheduling

Table 26 on page 1040 and Table 27 on page 1041 list the document, job, and destination attributes used to validate and schedule each job.

1. InfoPrint validates the value of the document or job attribute in the first column against the values of the logical destination attribute in the second column. If the logical destination does not support the document or job attribute value, InfoPrint rejects the job.

Note: If the logical destination attribute has no value, the logical destination supports all valid values of the document or job attribute.

2. If the value of the server attribute **accept-unsupported-jobs** is **false**, InfoPrint validates the value of the document or job attribute in the first column against the values of the actual destination attribute in the second column. If no actual destination supports the document or job attribute value, InfoPrint rejects the job.
3. If the value of the queue attribute **assign-to-destination** is **true**, InfoPrint assigns the job to an actual destination that supports all the job's attribute values.

Note: If the value of the **force-destination-setup** actual destination attribute is **true**, InfoPrint assumes that the actual destination supports all valid attribute values.

4. InfoPrint checks the attribute (or, for rescheduling, the checkpoint) in the first column against the attributes in the third column to determine if any actual destinations can process the job.
 - If the job has been assigned to an actual destination, InfoPrint checks only that actual destination.
 - If the job has not been assigned to an actual destination, InfoPrint checks all actual destinations that receive jobs from the queue.

Note: If the value of the **force-destination-setup** actual destination attribute is **true**, InfoPrint assumes that the actual destination can process any job with valid attribute values.

5. InfoPrint acts according to the result of step 4:
 - If a required resource is not ready, InfoPrint holds the job. The **required-resources-not-ready** job attribute indicates the resources that a job or document attribute specifies and that are not ready on the actual destination to which the job is assigned, or, if the job is not assigned, on the most suitable actual destination.
 - If the value of the job attribute **job-rip-action** is **rip-and-print-ignore-ready**, InfoPrint RIPs the job before placing it in the **held** state and sets the value of the **job-state-reasons** job attribute to **rip-completed**. The job is automatically released and scheduled for printing or transmission when the resources become ready.
 - Otherwise, InfoPrint sets the value of the **job-state-reasons** job attribute to **required-resource-not-ready**. You must release the job after making the resources ready. InfoPrint will not release it automatically.
 - If a required resource is not supported, InfoPrint holds the job and sets the value of the **job-state-reasons** job attribute to **required-resource-not-**

supported. The **required-resources-not-supported** job attribute indicates the resources that a job or document attribute specifies and that are not supported on the actual destination to which the job is assigned, or, if the job is not assigned, on the most suitable actual destination.

This situation can arise when the value of the server attribute **accept-unsupported-jobs** is **true** or when you change document, job, or actual destination attribute values after InfoPrint accepts a job.

You can change job, document, or actual destination attribute values so that at least one actual destination supports the job. You must then release the job before it can be printed or sent. InfoPrint will not release it automatically.

- If at least one actual destination can handle the job, InfoPrint schedules the job for printing or transmission.
6. If the job has not already been assigned to an actual destination, InfoPrint assigns it to the first suitable actual destination to become available after the job reaches the top of the queue.
 7. If the job is assigned to an actual destination with a value of **true** for the **force-destination-setup** attribute, InfoPrint checks the attributes in the third column when the job is about to be printed or sent. If any resources are not ready or not supported, InfoPrint disables the actual destination and sends a message to the operator. The operator changes the destination setup and enables the actual destination.
 8. The job is printed or sent.

Table 26. Document and destination attributes used for validation and scheduling

Document Attribute	Validation Attribute	Scheduling Attribute
carriage-control-type	carriage-control-types-supported	carriage-control-types-supported
class		classes-ready
color-bits-per-plane	color-bits-per-plane-supported	color-bits-per-plane-supported
color-profile	color-profiles-supported	color-profiles-supported
color-toner-saver	color-toner-saver-supported	color-toner-saver-supported
content-orientation	content-orientation-supported	content-orientation-supported
convert-to-ebcdic	convert-to-ebcdic-supported	convert-to-ebcdic-supported
copy-count	maximum-copies-supported	maximum-copies-supported
data-fidelity-problem-reported	data-fidelity-problem-reported-supported	data-fidelity-problem-reported-supported
default-character-mapping	character-mappings-supported	character-mappings-supported
default-input-tray	input-trays-supported	input-trays-supported
default-medium	media-supported	media-ready media-supported
default-printer-resolution	printer-resolutions-supported	printer-resolutions-ready printer-resolutions-supported
document-finishing	document-finishings-supported ¹	document-finishings-supported
document-format	document-formats-supported	document-formats-supported
document-type	document-types-supported	document-types-supported
font-resolution	font-resolutions-supported ¹	font-resolutions-supported
form-length	form-length-range-supported ¹	form-length-range-supported
halftone	halftones-supported ¹	halftones-supported
image-fit	image-fit-supported ¹	image-fit-supported

Table 26. Document and destination attributes used for validation and scheduling (continued)

<i>Document Attribute</i>	<i>Validation Attribute</i>	<i>Scheduling Attribute</i>
image-out-format	image-out-formats-supported	image-out-formats-supported
input-tray-select	input-trays-supported	input-trays-supported
number-up	number-up-supported ¹	number-up-supported
octet-count	file-size-range-supported	file-size-range-supported
output-appearance	output-appearances-supported ¹	output-appearances-supported
output-bin	output-bins-supported ¹	output-bins-supported
output-format	output-formats-supported ¹	output-formats-supported
page-media-select	media-supported	media-ready media-supported
page-select	page-select-supported	page-select-supported
plex	plexes-supported	plexes-supported
print-quality	print-qualities-supported	print-qualities-supported
scanner-correction	scanner-corrections-supported ¹	scanner-corrections-supported
screen-frequency	screen-frequencies-supported ¹	screen-frequencies-supported
sides	sides-supported	sides-supported
table-reference-characters	table-reference-characters-supported	table-reference-characters-supported
x-image-shift	x-image-shift-range-supported	x-image-shift-range-supported
x-image-shift-back	x-image-shift-range-supported	x-image-shift-range-supported
y-image-shift	y-image-shift-range-supported	y-image-shift-range-supported
y-image-shift-back	y-image-shift-range-supported	y-image-shift-range-supported
All document attributes affecting the actual destination	document-attributes-supported ¹	document-attributes-supported
1. This attribute applies only to actual destinations, not logical destinations.		

Table 27. Job and destination attributes used for validation and scheduling

<i>Job Attribute</i>	<i>Validation Attribute</i>	<i>Scheduling Attribute</i>
actual-destinations-requested	destination-name ²	destination-name
auxiliary-sheet-selection	auxiliary-sheet-selections-supported	auxiliary-sheet-selections-supported
destination-locations-requested	destination-locations	destination-locations
destination-models-requested	destination-model	destination-model
dss-requested	destination-support-system	destination-support-system
forms		forms-ready
job-batch		job-batches-ready
job-end-message	end-message-supported	end-message-supported
job-finishing	job-finishings-supported ¹	job-finishings-supported
job-rip-action	job-rip-actions-supported ¹	job-rip-actions-supported
job-start-message	start-message-supported	start-message-supported

Table 27. Job and destination attributes used for validation and scheduling (continued)

<i>Job Attribute</i>	<i>Validation Attribute</i>	<i>Scheduling Attribute</i>
job-start-wait	job-start-wait-supported¹	job-start-wait-supported
total-job-octets	job-size-range-supported¹	job-size-range-ready job-size-range-supported
All job attributes affecting the actual destination	job-attributes-supported¹	job-attributes-supported
Checkpoint where the job was paused		checkpoint-formats-supported³
<ol style="list-style-type: none"> 1. This attribute applies only to actual destinations, not logical destinations. 2. This attribute applies to both logical destinations and actual destinations, but only the actual destination attribute is used for validation. If validation fails, InfoPrint rejects the job even if the value of accept-unsupported-jobs is true. 3. You can use this attribute to reschedule paused jobs. 		

Appendix D. Form definitions and page definitions supplied with InfoPrint

This section describes the form definitions and page definitions that are supplied with InfoPrint. Form definitions provide instructions on how printers position data on the page and are located in directory `/usr/lpp/psf/reslib`. Page definitions contain formatting controls for jobs and are also located in directory `/usr/lpp/psf/reslib`.

Default form definitions

Default form definitions are determined by the output data stream format accepted by the printer that InfoPrint assigns to print the job:

Table 28. Default form definitions

<i>Data Stream</i>	<i>Default Form Definition</i>
Intelligent Printer Data Stream (IPDS)	F1A10111
Personal Printer Data Stream (PPDS)	F1PP0110
Printer Control Language 4 (PCL4)	F1HP0111
PCL5 and PCL5C	F1H50111

Table 29 describes the characteristics controlled by these form definitions.

Table 29. Default form definition characteristics

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F1A10111	1	2	Portrait	Across	0.165, 0.165
F1PP0110	1	1	Portrait	Across	0.25, 0.165
F1HP0111	1	2	Portrait	Across	0.165, 0.2
F1H50111	1	2	Portrait	Across	0.165, 0.165

General-purpose form definitions

You can specify different form definitions with jobs if the default form definitions do not satisfy your requirements. Table 30 lists the general-purpose form definitions that you can select.

Table 30. General-purpose form definitions

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F1A10110 ¹	1	1	Portrait	Across	0.165, 0.165
F1A10111 ¹	1	2	Portrait	Across	0.165, 0.165
F1A10112 ¹	1	Tumble	Portrait	Across	0.165, 0.165
F1A10120 ¹	2	1	Portrait	Across	0.165, 0.165
F1A10121 ¹	2	2	Portrait	Across	0.165, 0.165

Table 30. General-purpose form definitions (continued)

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F1A10122 ¹	2	Tumble	Portrait	Across	0.165, 0.165
F1A10130	3	1	Portrait	Across	0.165, 0.165
F1A10131	3	2	Portrait	Across	0.165, 0.165
F1A10132	3	Tumble	Portrait	Across	0.165, 0.165
F1A10140	4	1	Portrait	Across	0.165, 0.165
F1A10141	4	2	Portrait	Across	0.165, 0.165
F1A10142	4	Tumble	Portrait	Across	0.165, 0.165
F1A10150	5	1	Portrait	Across	0.165, 0.165
F1A10151	5	2	Portrait	Across	0.165, 0.165
F1A10152	5	Tumble	Portrait	Across	0.165, 0.165
F1ACIF ¹	1	2	Portrait	Across	0.165, 0.165
F1H50110 ²	1	1	Portrait	Across	0.165, 0.165
F1H50111 ²	1	2	Portrait	Across	0.165, 0.165
F1H50120 ²	2	1	Portrait	Across	0.165, 0.165
F1H50121 ²	2	2	Portrait	Across	0.165, 0.165
F1HP0110 ³	1	1	Portrait	Across	0.165, 0.2
F1HP0111 ³	1	2	Portrait	Across	0.165, 0.2
F1HP0120 ³	2	1	Portrait	Across	0.165, 0.2
F1HP0121 ³	2	2	Portrait	Across	0.165, 0.2
F1MG0110 ⁴	1	1	Portrait	Across	0.33, 0.33
F1MG0111 ⁴	1	2	Portrait	Across	0.33, 0.33
F1MG0120 ⁴	2	1	Portrait	Across	0.33, 0.33
F1MG0121 ⁴	2	2	Portrait	Across	0.33, 0.33
F1MGIMP ^{4, 6}	1	1	Portrait	Across	0.33, 0.33
F1PP0110 ⁵	1	1	Portrait	Across	0.25, 0.165
F1PP0111 ⁵	1	2	Portrait	Across	0.25, 0.165
F1PP0120 ⁵	2	1	Portrait	Across	0.25, 0.165
F1PP0121 ⁵	2	2	Portrait	Across	0.25, 0.165
F1SAPS ¹	1	1	Portrait	Across	0.16525, 0.16525
F1SAP ¹	1	2	Portrait	Across	0.16525, 0.16525

1. Designed for use with 3820, 3827, and 3835 printers.
2. These form definitions are recommended for printer devices that support the PCL5 and PCL5C data streams. They position the page of data so that the data is not placed in the unprintable area.
3. These form definitions are recommended for printer devices that support the PCL4 and PCL5 data streams. They position the page of data so that the data is not placed in the unprintable area.
4. These form definitions are recommended for the message pages printed by InfoPrint supported printers.
5. These form definitions are recommended for printer devices that support the PPDS data stream. They position the page of data so that the data is not placed in the unprintable area.
6. The F1MGIMP form definition specifies offset stacking.

Form definitions for printing envelopes

Use the form definitions in Table 31 to print envelopes and use the manual input bin on the LaserPrinter 4028. You can use these form definitions with other printers that use bin 65 as the envelope bin and bin 100 as the manual feed bin.

Table 31. Form definitions supplied with InfoPrint for printing envelopes

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the paper edge)</i>
F1A000E0	Envelope	1	Landscape	Across	0, 0
F1A000M0	Manual	1	Landscape	Across	0, 0
F1A101E0	Envelope	1	Landscape	Across	0.165, 0.165
F1A101M0	Manual	1	Landscape	Across	0.165, 0.165

Form definitions for 17 by 11 inch paper

Use the form definitions in Table 32 for jobs that require 17 by 11 inch paper.

Table 32. Form definitions supplied for 17 by 11 paper

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F100LS	1, 2, 3, 4, 5	1	Landscape	Across	0, 0
F100LD	1, 2, 3, 4, 5	2	Landscape	Across	0, 0
F100LT	1, 2, 3, 4, 5	Tumble	Landscape	Across	0, 0
F100LAND ¹	1, 2, 3, 4, 5	2	Landscape	Across	0, 0

1. Used for N_UP of 1.

Form definitions specifying a 0, 0 offset

The form definitions in Table 33 specify a 0, 0 offset from the upper-left corner of the page. Use these form definitions if images or data in the job prints off-center or appears to be shifting on the page.

Table 33. Form definitions supplied with InfoPrint specifying a 0, 0 offset

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F100S	1, 2, 3, 4, 5	1	Portrait	Across	0, 0
F100D	1, 2, 3, 4, 5	2	Portrait	Across	0, 0
F100T	1, 2, 3, 4, 5	Tumble	Portrait	Across	0, 0
F1A00010	1	1	Portrait	Across	0, 0

Table 33. Form definitions supplied with InfoPrint specifying a 0, 0 offset (continued)

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F1A00011	1	2	Portrait	Across	0, 0
F1A00012	1	Tumble	Portrait	Across	0, 0
F1A00020	2	1	Portrait	Across	0, 0
F1A00021	2	2	Portrait	Across	0, 0
F1A00022	2	Tumble	Portrait	Across	0, 0
F1A00030	3	1	Portrait	Across	0, 0
F1A00031	3	2	Portrait	Across	0, 0
F1A00032	3	Tumble	Portrait	Across	0, 0
F1A00040	4	1	Portrait	Across	0, 0
F1A00041	4	2	Portrait	Across	0, 0
F1A00042	4	Tumble	Portrait	Across	0, 0
F1A00050	5	1	Portrait	Across	0, 0
F1A00051	5	2	Portrait	Across	0, 0
F1A00052	5	Tumble	Portrait	Across	0, 0

Form definitions specifying N_UP page positioning

The form definitions in Table 34 have various N_UP values and page placement. See *InfoPrint Page Printer Formatting Aid: User's Guide* more information about N_UP printing.

Table 34. Form definitions for N_UP page positioning

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>N_UP</i>	<i>Page Placement</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position¹</i>
F1BOOK ²	1	2	2	Page 1 at 1 Front Page 2 at 2 Front Page 3 at 2 Back Page 4 at 1 Back	Portrait	Across	0, 0
F1N2SST1 ²	1, 2, 3, 4, 5	Tumble	2	Page 1 at 1 Front Page 2 at 1 Back Page 3 at 2 Front Page 4 at 2 Back	Portrait	Across	0, 0
F1N2SS11 ²	1, 2, 3, 4, 5	2	2	Page 1 at 1 Front Page 2 at 1 Back Page 3 at 2 Front Page 4 at 2 Back	Portrait	Across	0, 0
F1N2SS12 ²	1, 2, 3, 4, 5	2	2	Page 1 at 1 Front Page 2 at 2 Front Page 3 at 1 Back Page 4 at 2 Back	Portrait	Across	0, 0

Table 34. Form definitions for N_UP page positioning (continued)

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>N_UP</i>	<i>Page Placement</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position¹</i>
F1N2SS13 ²	1, 2, 3, 4, 5	2	3	Page 1 at 1 Front Page 2 at 2 Front Page 3 at 3 Front Page 4 at 1 Back Page 5 at 2 Back Page 6 at 3 Back	Portrait	Across	0, 0
F1N20010	1	1	2	Default	Portrait	Across	0, 0
F1N20011	1	2	2	Default	Portrait	Across	0, 0
F1N20012	1	Tumble	2	Default	Portrait	Across	0, 0
F1N20110	1	1	2	Default	Portrait	Across	0.165, 0.165
F1N20111	1	2	2	Default	Portrait	Across	0.165, 0.165
F1N20112	1	Tumble	2	Default	Portrait	Across	0.165, 0.165
F1N20120	2	1	2	Default	Portrait	Across	0.165, 0.165
F1N20121	2	2	2	Default	Portrait	Across	0.165, 0.165
F1N20122	2	Tumble	2	Default	Portrait	Across	0.165, 0.165
F1N20130	3	1	2	Default	Portrait	Across	0.165, 0.165
F1N20131	3	2	2	Default	Portrait	Across	0.165, 0.165
F1N20132	3	Tumble	2	Default	Portrait	Across	0.165, 0.165
F1N20140	4	1	2	Default	Portrait	Across	0.165, 0.165
F1N20141	4	2	2	Default	Portrait	Across	0.165, 0.165
F1N20142	4	Tumble	2	Default	Portrait	Across	0.165, 0.165
F1N20150	5	1	2	Default	Portrait	Across	0.165, 0.165
F1N20151	5	2	2	Default	Portrait	Across	0.165, 0.165
F1N20152	5	Tumble	2	Default	Portrait	Across	0.165, 0.165
F1N201LA	1	1	2	Default	Landscape	Across	0.0, 0.5
F1N201LD	1	1	2	Default	Landscape	Down	0.0, 0.5
F1N201PA	1	1	2	Default	Portrait	Across	0.0, 0.5
F1N201PD	1	1	2	Default	Portrait	Down	0.0, 0.5

1. Specified in inches from the top-left corner of the page.
2. Used with printers that support enhanced N_UP values.

Form definitions for printing on prepunched paper

Use the form definitions in Table 35 for jobs that require prepunched paper.

Table 35. Form definitions for prepunched paper

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F1H10110	1	1	Portrait	Across	1.000, 0.165
F1H10111	1	2	Portrait	Across	1.000, 0.165, 0.165, 0.165

Table 35. Form definitions for prepunched paper (continued)

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F1H10112	1	Tumble	Portrait	Across	1.000, 0.165, 1.000, 0.165
F1H10120	2	1	Portrait	Across	1.000, 0.165
F1H10121	2	2	Portrait	Across	1.000, 0.165, 0.165, 0.165
F1H10122	2	Tumble	Portrait	Across	1.000, 0.165, 1.000, 0.165
F1H10130	3	1	Portrait	Across	1.000, 0.165
F1H10131	3	2	Portrait	Across	1.000, 0.165, 0.165, 0.165
F1H10132	3	Tumble	Portrait	Across	1.000, 0.165, 1.000, 0.165
F1H10140	4	1	Portrait	Across	1.000, 0.165
F1H10141	4	2	Portrait	Across	1.000, 0.165, 0.165, 0.165
F1H10142	4	Tumble	Portrait	Across	1.000, 0.165, 1.000, 0.165
F1H10150	5	1	Portrait	Across	1.000, 0.165
F1H10151	5	2	Portrait	Across	1.000, 0.165, 0.165, 0.165
F1H10152	5	Tumble	Portrait	Across	1.000, 0.165, 1.000, 0.165

Form definitions for specific models of InfoPrint printers

Use the form definitions in Table 36 with the InfoPrint 3831 Page Printer, InfoPrint 3835, and InfoPrint 3900 Advanced Function Printers.

Table 36. Form definitions supplied for InfoPrint 3831, 3835, and 3900 printers

<i>Form Definition</i>	<i>Printer Type Compatible with</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position¹</i>
F1OGL ²	3800	1	1	Landscape	Across	0.0, 0.0
F10101LA	3800 wide forms	1	1	Landscape	Across	0.00, 0.50
F10101LD	3800 narrow forms	1	1	Landscape	Down	0.00, 0.50
F10101PA	3800 narrow forms	1	1	Portrait	Across	0.00, 0.50
F10101PD	3800 wide forms	1	1	Portrait	Down	0.00, 0.50
F1C10110 ³	Cut-sheet	1	1	Landscape	Down	0.165, 0.165
F1C10111 ⁴	Cut-sheet	1	2	Landscape	Down	0.165, 0.165
F1C10112 ⁴	Cut-sheet	1	Tumble	Landscape	Down	0.165, 0.165

1. Specified in inches from the paper edge.
2. Created using Overlay Generation Language (OGL). Positions sample overlays.
3. Designed for use with the InfoPrint 3835 printer.
4. Designed for use with advanced function printers. Specify these form definitions when printing data that has been formatted for cut-sheet printers.

Use the form definitions in Table 37 on page 1049 with the InfoPrint 3935 Advanced Function Printer and the InfoPrint 3160 Advanced Function Printer.

Table 37. Form definition supplied for InfoPrint 3935 and 3160 printers

<i>Form Definition</i>	<i>Bin</i>	<i>Sides</i>	<i>Presentation Mode</i>	<i>Print Direction</i>	<i>Page Position (in inches from the top-left corner of the page)</i>
F1A1BIN2	2	1	Portrait	Across	0.165, 0.165
F1A1BIN3	3	1	Portrait	Across	0.165, 0.165
F1A1BIN4	4	1	Portrait	Across	0.165, 0.165
F1A1BIN5	5	1	Portrait	Across	0.165, 0.165

Note: Additional sample form definitions to help with migration from 3800s to cutsheet printers and for using SMO are available on the Web site:

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

Page definitions supplied with InfoPrint

Table 38 through Table 42 on page 1051 list the page definitions that are supplied with InfoPrint. The page definitions are grouped by the size of the paper on which the job prints.

Page definitions for letter-sized paper

Table 38. Page definitions for letter-sized paper

<i>Page Definition</i>	<i>Printable Area (Width by Height, In Inches)</i>	<i>Print Lines per Page</i>	<i>Print Position: Down or Across</i>	<i>Recommended Font</i>	<i>Printing Direction</i>	<i>Page Orientation</i>
P1A06462 ^{1, 2}	8.17 by 10.67	64 at 6.0 lpi	30/0	GT10	Across	Portrait
P1A08682 ³	8.17 by 10.67	86 at 8.2 lpi	24/0	GT12	Across	Portrait

1. This page definition is also valid for 9.5 by 11.0 inch continuous-form paper.
 2. Designed for use with 3812, 3816, 3820, 3825, 3827, 3835, 3900, 4028, 4224, and 4234 printers.
 3. Designed for use with 3820, 3827, and 3835 printers.

Page definitions for A4-sized paper

Table 39. Page definitions for A4-sized paper

<i>Page Definition</i>	<i>Printable Area (Width by Height, In Inches)</i>	<i>Print Lines per Page</i>	<i>Print Position: Down or Across</i>	<i>Recommended Font</i>	<i>Printing Direction</i>	<i>Page Orientation</i>
P1C09182 ¹	7.94 by 11.36	91 at 8.2 lpi	25/0	GT12	Across	Portrait
P1CYR182 ^{1, 5}	7.94 by 11.36	91 at 8.2 lpi	25/0		Across	Portrait
P1CYR683 ^{1, 2, 3, 5}	10.67 by 7.94	66 at 8.5 lpi	24/224		Down	Landscape
P1V0436B ²	10.67 by 7.11	43 at 6.1 lpi	30/0	GT10	Up	Landscape
P1V04863 ^{1, 2}	10.67 by 7.94	48 at 6.1 lpi	30/0	GT10	Down	Landscape
P1V0588B ²	10.67 by 7.11	58 at 8.2 lpi	24/0	GT12	Up	Landscape
P1V0598B ²	10.67 by 7.11	59 at 8.2 lpi	24/0	GT12	Up	Landscape
P1V0608B ^{2, 3}	10.67 by 7.11	60 at 8.5 lpi	24/224	GT15	Up	Landscape

Table 39. Page definitions for A4-sized paper (continued)

<i>Page Definition</i>	<i>Printable Area (Width by Height, In Inches)</i>	<i>Print Lines per Page</i>	<i>Print Position: Down or Across</i>	<i>Recommended Font</i>	<i>Printing Direction</i>	<i>Page Orientation</i>
P1V0618B ^{2,3}	10.67 by 7.11	61 at 8.5 lpi	24/224	GT15	Up	Landscape
P1V06483 ^{1,2}	10.67 by 7.94	64 at 8.2 lpi	24/0	GT12	Down	Landscape
P1V06683 ^{1,2,3}	10.67 by 7.94	66 at 8.5 lpi	24/224	GT15	Down	Landscape
P1X04763 ^{2,4}	10.60 by 7.77	47 at 6.1 lpi	30/0	GT10	Down	Landscape

1. Designed to work with 3820, 3827, 3835 printers.
 2. Designed to work for letter-sized and A4-sized paper.
 3. The printable area is 9.74 by 7.94 inches because of the 224 logical unit offset in the "Print Position: Down/Across" column.
 4. Designed for use with HPCL and PPDS data streams.
 5. Designed for Cyrillic support for the **sap2afp** transform and shipped with the InfoPrint Manager: SAP Print Feature. This page definition calls the codepage T1001172 (Cyrillic Multilingual with Box Draw) with character set CZ4203 (Courier Normal) and CZ4403 (Courier Bold) directly.

Page definitions for letter- and A4-sized paper with multiple-up of 2 and 4

Table 40. Page definitions for letter- and A4-sized paper with multiple-up of 2 and 4

<i>Page Definition</i>	<i>Printable Area (Width by Height, In Inches)</i>	<i>Print Lines per Page</i>	<i>Print Position: Down or Across</i>	<i>Recommended Font</i>	<i>Printing Direction</i>	<i>Page Orientation</i>
P1W1168B	10.67 by 7.11	58 at 8.2 lpi	Page 1 24/0 Page 2 24/1281	GT15	Up	Landscape
P1W1188B	10.67 by 7.11	59 at 8.2 lpi	Page 1 24/0 Page 2 24/1281	GT15	Up	Landscape
P1W120C2 ¹	7.94 by 10.67	60 at 12.0 lpi	Page 1 16/160 Page 2 1344/160	GT20	Across	Portrait
P1W12883 ¹	10.67 by 7.94	64 at 8.2 lpi	Page 1 24/0 Page 2 24/1281	GT15	Down	Landscape
P1W216FB	10.67 by 7.11	54 at 15.2 lpi	Page 1 16/48 Page 2 890/48 Page 3 16/1322 Page 4 890/1322	GT24	Up	Landscape
P1W220FB	10.67 by 7.11	55 at 15.2 lpi	Page 1 16/48 Page 2 890/48 Page 3 16/1322 Page 4 890/1322	GT24	Up	Landscape
P1W240F3 ¹	10.67 by 7.94	60 at 15.2 lpi	Page 1 16/48 Page 2 968/48 Page 3 16/1322 Page 4 968/1322	GT24	Down	Landscape

1. Designed to work with 3820, 3827, 3835 printers.

Page definitions for legal-sized paper

Table 41. Page definitions for legal-sized paper

<i>Page Definition</i>	<i>Printable Area (Width by Height, In Inches)</i>	<i>Print Lines per Page</i>	<i>Print Position: Down or Across</i>	<i>Recommended Font</i>	<i>Printing Direction</i>	<i>Page Orientation</i>
P1B0446B	13.67 by 7.34	44 at 6.0 lpi	30/0	GT10	Up	Landscape
P1B04963 ¹	13.67 by 8.17	49 at 6.0 lpi	30/0	GT10	Down	Landscape
P1B0608B	13.67 by 7.34	60 at 8.2 lpi	24/0	GT12	Up	Landscape
P1B06683 ¹	13.67 by 8.17	66 at 8.2 lpi	24/0	GT12	Down	Landscape
P1B08262 ²	8.17 by 13.67	82 at 6.0 lpi	30/0	GT10	Across	Portrait
P1B11082 ¹	8.17 by 13.67	110 at 8.2 lpi	24/0	GT12	Across	Portrait
P1R04763 ³	13.6 by 8.0	47 at 6.0 lpi	30/0	GT10	Down	Landscape

1. Designed for use with 3820, 3827, and 3835 printers.
 2. Designed for use with 3812, 3816, 3820, 3825, 3827, 3828, 3835, 3900, 4028, and 4224 printers.
 3. Designed for use with HPCL and PPDS data streams.

Page definitions for B4-sized paper

Table 42. Page definitions for B4-sized paper

<i>Page Definition</i>	<i>Printable Area (Width by Height, In Inches)</i>	<i>Print Lines per Page</i>	<i>Print Position: Down or Across</i>	<i>Recommended Font</i>	<i>Printing Direction</i>	<i>Page Orientation</i>
P1D0556B	14.0 by 8.96	55 at 6.1 lpi	30/0	GT10	Up	Landscape
P1D06063 ¹	14.0 by 9.79	60 at 6.1 lpi	30/0	GT10	Down	Landscape
P1D0748B	14.0 by 8.96	74 at 8.2 lpi	24/0	GT12	Up	Landscape
P1D08083 ¹	14.0 by 9.79	80 at 8.2 lpi	24/0	GT12	Down	Landscape
P1D08462 ¹	9.79 by 14.0	84 at 6.0 lpi	30/0	GT10	Across	Portrait
P1D11382 ¹	9.79 by 14.0	113 at 8.2 lpi	24/0	GT12	Across	Portrait

1. Designed for use with 3820, 3827, and 3835 printers.

Appendix E. 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 let you:

- 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. Consult the assistive technology documentation for specific information when using it to access the InfoPrint Manager.

Keyboard navigation of the user interface

The InfoPrint Manager user interface complies with the accessibility guidelines for HTML. Users can use keyboard shortcuts or function keys (PF keys) to access the InfoPrint Manager 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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 - actual destination 491
- audit-exit
 - actual destination 492
- authorize-jobs
 - logical destination 871
- auto-create-shared-printers
 - server 929
- automatic-postscript-mode-switch
 - actual destination 493
- auxiliary-sheet-identifier
 - auxiliary sheet 679
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 - default job 798
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- auxiliary-sheet-selections-supported
 - actual destination 494
 - logical destination 871
- backlog
 - queue 911, 921
- backlog-lower-bound
 - queue 912
- backlog-update-interval
 - queue 912
- backlog-upper-bound
 - queue 913
- backlogged
 - queue 913
- backup-destinations
 - actual destination 495
- base-printer
 - default document 694
 - document 694
- booklet-fold
 - actual destination 495
- building-text
 - default document 696
 - document 696
- callback-number
 - default document 697
 - document 697
- cancel-individual-document-supported
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 - server 929
- capture-inline-cmr-resources
 - actual destination 496
- capture-inline-otf-resources
 - actual destination 497
- carriage-control-type
 - default document 697
 - document 697
- carriage-control-types-supported
 - actual destination 498
 - logical destination 872
- character-mappings-supported
 - actual destination 499
 - logical destination 873
- chars
 - default document 698
 - document 698
- checkpoint-at-stacker
 - actual destination 500
- checkpoint-formats-supported
 - actual destination 501
- class
 - default document 699
 - document 699
- classes-ready
 - actual destination 501
- client-driver-names
 - actual destination 502
 - logical destination 873
 - servers 930
- color-bits-per-plane
 - actual destination 503
 - default document 699
 - document 699
- color-bits-per-plane-supported
 - actual destination 503
- color-mapping-table
 - actual destination 504

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 - default document 700
 - document 700
- color-profile
 - actual destination 505
 - default document 700
- color-profiles-supported
 - actual destination 506
- color-rendering-intent
 - actual destination 506
 - default document 701
 - document 701
- color-toner-saver
 - default document 703
 - document 703
- command
 - actual destination 515
- comment
 - default job 814
 - job 814
- completion-time
 - job 799, 857
- complex, specifying 476
- connection-timeout
 - actual destination 509
- content-orientation
 - default document 703
 - document 703
- content-orientations-supported
 - actual destination 510
 - logical destination 874
- context-address
 - resource context 924
- convert-to-ebcdic
 - default document 704
 - document 704
- convert-to-ebcdic-supported
 - actual destination 511
 - logical destination 875
- copies
 - default document 705
 - document 705
- copy-count
 - default document 705
 - document 705
- count-job-pages
 - servers 930
- creation-time
 - job 799
- current-backlog
 - queue 914, 921
- current-job-state
 - job 800
- current-page-printing
 - job 801
- d-s-s-requested
 - default job 808
 - job 808
- data-fidelity-problem-reported
 - default document 705
 - document 705
- data-fidelity-problem-reported-supported
 - actual destination 511
 - logical destination 876

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- deadline-in-jeopardy
 - job 802
- default-character-mapping
 - default document 706
 - document 706
- default-font-fidelity-action
 - actual destination 512
- default-font-resolution
 - actual destination 513
- default-input-tray
 - actual destination 513
 - default document 707
 - document 707
- default-medium
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 - document 708
- default-printer-resolution
 - default document 709
 - document 709
- delete-segment-list
 - default job 803
 - job 803
- department-text
 - default document 710
 - document 710
- descriptor
 - actual destination 514
 - auxiliary sheet 679
 - default document 710
 - default job 803
 - log 863
 - logical destination 876
 - medium 901
 - queue 914
 - resource context 925
 - server 931
 - transform 965
- destination-associated-printers
 - logical destination 877
- destination-command
 - actual destination 515
- destination-company-text
 - default document 711, 756
 - document 711, 756
- destination-data-stream
 - actual destination 516
- destination-initial-value-document
 - logical destination 877
- destination-initial-value-job
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 - logical destination 878
- destination-locations
 - actual destination 517
 - logical destination 878
- destination-locations-requested
 - default job 804
 - job 804
- destination-model
 - actual destination 518
 - logical destination 879
- destination-models-requested
 - default job 805
 - job 805
- destination-name
 - actual destination 519
 - logical destination 879

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- destination-name-requested
 - job 806
- destination-needs-attention-time
 - actual destination 520
- destination-needs-key-operator-attention-time
 - actual destination 520
- destination-pass-through
 - actual destination 521
 - default document 712
 - document 712
- destination-poll-interval
 - actual destination 522
- destination-realization
 - actual destination 522
 - logical destination 880
- destination-register-threshold
 - actual destination 523
- destination-release-timer
 - actual destination 523
- destination-state
 - actual destination 524
- destination-states-supported
 - server 932
- destination-support-system
 - actual destination 525
 - logical destination 880
- destination-support-systems-supported
 - server 933
- destination-tcpip-internet-address
 - actual destination 526
- destination-tcpip-port-number
 - actual destination 527
- destinations-assigned
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- destinations-ready
 - logical destination 881
- destinations-used
 - job 807
- device-contact
 - actual destination 529
- device-description
 - actual destination 529
- device-input-trays
 - actual destination 530
- device-ip-address
 - actual destination 531
- device-location
 - actual destination 531
- device-manufacturer
 - actual destination 532
- device-marker-supplies
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- device-media-supported
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 - actual destination 536
- device-output-bins
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- device-printer-name
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- device-serial-number
 - actual destination 538
- device-state
 - actual destination 539
- device-support-system
 - actual destination 525
 - logical destination 880, 882
- device-support-system-requested
 - default job 808
 - job 808
- disallowed-list-object-classes
 - server 934
- discard-time
 - job 817
- document-attributes-supported
 - actual destination 540
 - server 934
- document-comment
 - default document 713
 - document 713
- document-content
 - document 713
- document-file-name
 - document 714
- document-finishing
 - default document 715
 - document 715
- document-finishings-supported
 - actual destination 546
- document-format
 - default document 716
 - document 716
- document-formats-ripped-at-destination
 - actual destination 547
- document-formats-supported
 - actual destination 548
 - logical destination 882
 - tra 966
- document-number
 - document 717
- document-sequence-number
 - document 717
- document-type
 - default document 718
 - document 718
- document-types-supported
 - actual destination 550
 - logical destination 883
- document-varying-attributes-supported
 - actual destination 551
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- dss-job-message-log-size
 - actual destination 553
- dss-job-message-log-wrap
 - actual destination 554
- dss-requested
 - default job 808
 - job 808
- ebcdic-character-mapping
 - actual destination 554
- email-from-address
 - default document 719
 - document 719

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- email-to-address
 - default document 719
 - document 719
- enabled
 - actual destination 555
 - log 863
 - logical destination 883
- end-message
 - default job 817
 - job 817
- end-message-supported
 - actual destination 555
 - logical destination 884
- end-sheets-supported
 - actual destination 556
- estimated-completion-time
 - job 809
- estimated-processing-time
 - job 810
- events-supported
 - server 935
- explicit-page-placement
 - default document 720
 - document 720
- fax-number
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 - document 724
- fax-to-name
 - default document 724
 - document 724
- file-name
 - document 714
- file-size-range-supported
 - actual destination 557
- font-fidelity-action
 - default document 725
 - document 725
- font-processing-messages
 - default document 725
 - document 725
- font-resolution
 - default document 726
 - document 726
- font-resolutions-supported
 - actual destination 558
- force-destination-setup
 - actual destination 559
- form-definition
 - actual destination 561
 - default document 727
 - document 727
- form-length
 - default document 728
 - document 728
- form-length-range-supported
 - actual destination 561
 - logical destination 884
- format
 - default document 716
 - document 716
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 - job 811
- forms-available
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- forms-ready
 - actual destination 562

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- global-id
 - job 821
- halftone
 - default document 729
 - document 729
- halftones-supported
 - actual destination 563
- hold
 - default job 820
 - job 820
- hostname
 - server 938, 955
- hot-folder-directory
 - logical destination 885
- hot-folder-polling-interval
 - logical destination 886
- hot-folder-polling-method
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- image-fit-supported
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- image-length
 - actual destination 572
 - default document 738
 - document 738
- image-out-format
 - default document 739
 - document 739
- image-out-formats-supported
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 - logical destination 887
- image-width
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 - default document 740
 - document 740
- initial-value-document
 - document 741
- initial-value-document-identifier
 - default document 742
- initial-value-job
 - job 812
- initial-value-job-identifier
 - default job 812
- input-color-management-resources
 - default document 742
 - document 742
- input-data-user-exit
 - actual destination 575
- input-exit
 - default document 743
 - document 743
- input-tray-select
 - default document 744
 - document 744
- input-trays-medium
 - actual destination 576
- input-trays-supported
 - actual destination 578
 - logical destination 888
- interrupt-message-page-edge-marks
 - actual destination 580

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- interrupt-message-page-enabled
 - actual destination 578
- interrupt-message-page-form-definition
 - actual destination 579
- intervening-jobs
 - job 813
- intervention-timer
 - actual destination 580
- ip-address
 - server 938, 955
- jde-jdl
 - default document 745
 - document 745
- job-attributes-supported
 - actual destination 581
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- job-batch
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 - job 813
- job-batches-ready
 - actual destination 582
- job-client-id
 - job 814
- job-comment
 - default job 814
 - job 814
- job-complexity
 - job 815
- job-copies-completed
 - job 816
- job-deadline-time
 - job 816
- job-discard-time
 - job 817
- job-end-message
 - default job 817
 - job 817
- job-finishing
 - default job 818
 - job 818
- job-finishings-supported
 - actual destination 582
- job-hold
 - default job 820
 - job 820
- job-identifier
 - job 821
- job-log
 - job 821
- job-media-sheet-count
 - job 822
- job-message-from-administrator
 - job 822
- job-message-to-operator
 - default job 823
 - job 823
- job-name
 - job 824
- job-originator
 - default job 824
 - job 824
- job-owner
 - job 825
- job-page-count
 - job 825

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- job-print-after
 - job 826
- job-priority
 - default job 827
 - job 827
- job-result-set-delivery-methods-supported
 - actual destination 584
- job-retain-until
 - job 828
- job-retention-period
 - default job 828
 - job 828
- job-retry-count-limit
 - actual destination 584
- job-retry-interval
 - actual destination 585
- job-rip-action
 - default job 829
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- job-rip-actions-supported
 - actual destination 586
- job-ripped-by-server
 - default job 830
 - job 830
- job-scheduling
 - job 833
- job-size
 - job 860
- job-size-range-ready
 - actual destination 587
- job-size-range-supported
 - actual destination 588
 - logical destination 889
- job-start-message
 - default job 834
 - job 834
- job-start-wait
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 - actual destination 589
- job-state
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- job-state-reasons
 - job 836
- job-states-supported
 - server 941
- job-submission-complete
 - job 837
- job-submission-timer
 - server 942
- job-terminate-message-count
 - default document 745
 - document 745
- job-ticket-content
 - job 811
- jog-between-job-copies
 - default document 746
 - document 746
- jog-between-jobs
 - actual destination 590
- large-file-enabled
 - actual destination 590
- last-accessor
 - job 842

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- last-modifier
 - job 842
- list-of-managers
 - actual destination 591
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 - default job 838
 - logical destination 890
 - queue 915
 - server 943
- locale
 - server 943
- locations
 - actual destination 517
 - logical destination 878, 890
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 - default job 804
 - job 804
- log-accounting-data
 - actual destination 592
 - server 944
- log-address
 - log 864
- log-backup-number
 - log 864
- log-identifier
 - log 865
- log-message
 - log 865
- log-severity
 - log 865
- log-size
 - log 866
- log-trace-groups
 - log 867
- log-type
 - log 867
- log-wrap
 - log 868
- logged-on-sap
 - actual destination 593
- logical-destinations-assigned
 - actual destination 593
 - queue 915
- logical-destinations-ready
 - default document 747
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- logical-destinations-supported
 - server 945
- logical-printer
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- logical-printer-requested
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- logical-printers-assigned
 - queue 915, 916
- logical-printers-ready
 - default document 747
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 - queue 915, 916
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 - server 945, 946
- lower-memory-usage-exit
 - server 946

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- lower-memory-usage-threshold
 - server 947
- managers
 - actual destination 591
 - default document 747
 - default job 838
 - logical destination 890
 - queue 915, 916
 - server 943, 947
- maximum-concurrent-jobs
 - actual destination 594
- maximum-copies-supported
 - actual destination 596
 - logical destination 891
- maximum-fonts-to-keep
 - actual destination 596
- maximum-messages-printed
 - default document 748
 - document 748
- maximum-non-raster-rips
 - server 947
- maximum-overlays-to-keep
 - actual destination 597
- maximum-presentation-object-containers-to-keep
 - actual destination 597
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- maximum-segments-to-keep
 - actual destination 598
- maximum-transform-pages-ahead
 - default document 749
 - document 749
- media-ready
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- media-sheet-count
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- media-sheets-completed
 - job 840
- media-supported
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 - logical destination 891
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 - medium 902
- medium-dimensions
 - medium 902
- medium-form-parts
 - medium 903
- medium-holes-count
 - medium 904
- medium-identifier
 - medium 904
- medium-sides
 - medium 905
- medium-size
 - medium 906
- medium-type
 - medium 906
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 - logical destination 892
 - medium 908

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 - server 948
 - message-font-type
 - actual destination 602
 - message-form-definition
 - actual destination 603
 - message-from-administrator
 - job 822
 - message-to-operator
 - default job 823
 - job 823
 - mid-release-timer
 - actual destination 603
 - mid-support-enabled
 - actual destination 604
 - model
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 - logical destination 879, 892
 - models-requested
 - default job 805
 - job 805
 - modification-time
 - job 841
 - modify-individual-document-supported
 - server 948
 - multiple-documents-supported
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 - mvs-destination
 - default document 750
 - document 750
 - mvs-forms
 - default document 750
 - document 750
 - mvs-segment-id
 - default document 751
 - document 751
 - name
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 - name-of-last-accessor
 - job 842
 - name-text
 - default document 751
 - document 751
 - new-job-identifier
 - job 842
 - new-line-option
 - default document 752
 - document 752
 - new-line-option-data-encoding
 - default document 753
 - document 753
 - node-id-text
 - default document 754
 - document 754
 - non-process-runout-timer
 - actual destination 605
 - notification-delivery-methods-supported
 - server 949
 - notification-profile
 - actual destination 606
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 - job 843
 - logical destination 892

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 - actual destination 608
 - queue 919
 - number-of-documents
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 - number-up
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 - number-up-supported
 - actual destination 609
 - object-class
 - auxiliary sheet 680
 - default document 755
 - default job 846
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 - job 846
 - log 868
 - logical destination 894
 - medium 908
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 - resource context 925, 967
 - server 952
 - object-classes-supported
 - server 952
 - octet-count
 - document 756
 - octets-completed
 - job 846, 853
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 - of documents 686
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 - offset-stacking-available
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 - actual destination 611
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 - orientation
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 - document 703
 - orientations-supported
 - actual destination 510
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 - other-options
 - actual destination 521
 - default document 712
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 - default document 757
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 - output-appearance
 - default document 758
 - document 758
 - output-appearances-supported
 - actual destination 613
 - output-bin
 - actual destination 614
 - default document 758
 - document 758
 - output-bin-numbers
 - actual destination 615
 - output-bins-supported
 - actual destination 616
 - output-color-management-resource
 - actual destination 759
 - default document 616
 - document 616
 - output-color-management-resource-inline
 - default document 760
 - document 760
 - output-color-management-resource-tag
 - default document 760
 - document 760
 - output-data-user-exit
 - actual destination 617
 - output-format
 - default document 761
 - document 761
 - output-format-supported
 - actual destination 618
 - overlay
 - actual destination 619
 - default document 763
 - document 763
 - overlay-back
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 - page-definition
 - default document 766
 - document 766
 - page-media-select
 - default document 766
 - document 766
 - page-select
 - document 766
 - page-select-supported
 - actual destination 619
 - pages-completed
 - job 848
 - pcl-server-address
 - actual destination 620
 - pcl-server-port
 - actual destination 621
 - physical-printer
 - actual destination 519
 - physical-printers-assigned
 - queue 909, 920

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 - physical-printers-ready
 - queue 909, 921
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 - physical-printers-supported
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 - actual destination 621
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 - plexes-supported
 - actual destination 622
 - logical destination 895
 - position-in-queue
 - job 813
 - postscript-server-address
 - actual destination 623
 - logical destination 894
 - postscript-server-port
 - actual destination 624
 - presentation-fidelity-problem-reported
 - actual destination 624
 - presentation-object-container-
 - extraction-mode
 - actual destination 625
 - previous-job-state
 - job 849
 - previous-state
 - job 849
 - print-after
 - job 826
 - print-edge-marks
 - actual destination 626
 - print-qualities-supported
 - actual destination 626
 - logical destination 895
 - print-quality
 - default document 769
 - document 769
 - print-queue
 - actual destination 627
 - print-queue-name
 - actual destination 627
 - printer
 - actual destination 519
 - logical destination 879, 896
 - printer-associated-printers
 - logical destination 877, 896
 - printer-command
 - actual destination 515
 - printer-data-stream
 - actual destination 516
 - printer-end-sheet
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 - printer-escape-codes
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 - printer-models-requested
 - default job 805
 - job 805
 - printer-name
 - actual destination 519
 - logical destination 879, 896
 - printer-name-requested
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 - printer-needs-attention-time
 - actual destination 520
 - printer-needs-key-operator-attention-
 - time
 - actual destination 520
 - printer-pass-through
 - actual destination 521
 - default document 712
 - document 712
 - printer-realization
 - actual destination 522
 - logical destination 880, 896
 - printer-register-threshold
 - actual destination 523
 - printer-release-timer
 - actual destination 523
 - printer-requested
 - job 806
 - printer-resolutions-ready
 - actual destination 631
 - printer-resolutions-supported
 - actual destination 632
 - printer-separator-sheet
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 - printer-start-sheet
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 - actual destination 524
 - printer-states-supported
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 - printer-tcpip-port-number
 - actual destination 527
 - printer-timeout-period
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 - job 807
 - printers-ready
 - logical destination 881, 896
 - printers-used
 - job 807
 - problem-child
 - server 953
 - problem-message
 - actual destination 636
 - processing-time
 - job 851

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 - programmer-text
 - default document 770
 - document 770
 - promotion-time
 - job 852
 - psf-exit-form-definition
 - auxiliary sheet 680
 - psf-exit-page-mark
 - auxiliary sheet 681
 - psf-exit-program-name
 - auxiliary sheet 681
 - psf-post-print-accounting-program-
 - name
 - auxiliary sheet 685
 - psf-tray-characteristics
 - actual destination 637
 - public-context-presentation-object-
 - container
 - actual destination 641
 - qualities-supported
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 - queue-assigned
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 - queues-supported
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 - reasons
 - job 836
 - register-threshold
 - actual destination 523
 - registered-with-spooler
 - actual destination 642
 - requeue-failed-jobs
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 - job 854
 - required-resources-not-supported
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 - resource-context
 - actual destination 643
 - default document 770
 - document 770
 - resource-context-font
 - actual destination 645
 - default document 772
 - document 772
 - resource-context-form-definition
 - actual destination 646
 - default document 773
 - document 773
 - resource-context-identifier
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 - actual destination 647
 - default document 774
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 - resource-context-page-definition
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 - resource-context-presentation-object-container 777
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 - document 778
 - resource-exit
 - default document 779
 - document 779
 - results-profile
 - default job 855
 - job 855
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