

InfoPrint XT for Windows: Installation Guide and User's Guide

Version 2 Release 1

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Note:

Before using this information and the product it supports, read the information in "Notices" on page 155.

Second edition (December 2007)

This edition applies to the InfoPrint XT for Windows programming request for price quotation (PRPQ), 5799-RZA, Version 2.1.0.110 (Product Update 11) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this publication

This publication describes how to install, configure, and use InfoPrint® XT for Windows (InfoPrint XT). With InfoPrint XT, you can process and print Xerox Line Conditioned Data Stream (LCDS) jobs and Xerox metacode jobs on Intelligent Printer Data Stream™ (IPDS™) printers.

You can use InfoPrint XT with InfoPrint Manager for Windows (InfoPrint Manager) or as a stand-alone transform. This publication describes how to use InfoPrint XT with InfoPrint Manager and points out differences for systems where InfoPrint Manager is not installed.

Note: You can also use InfoPrint XT as a stand-alone transform when you access it from InfoPrint ProcessDirector (5697-N55) as an InfoPrint ProcessDirector external step.

Who should use this publication

This publication contains instructions and procedures for Windows administrators who install the InfoPrint XT software and do configuration tasks for the installation. It also contains information for printer operators who process and print the Xerox jobs on IPDS printers.

How this publication is organized

This publication contains these chapters:

Chapter 1, “Introducing InfoPrint XT,” on page 1

Describes InfoPrint XT functions and the restrictions that apply when InfoPrint XT processes Xerox jobs.

Chapter 2, “Installing and configuring InfoPrint XT,” on page 11

Describes how to install the InfoPrint XT software on the Windows system. It also describes how to configure InfoPrint Manager objects, such as actual destinations, to work with InfoPrint XT. It includes test procedures to verify the installation.

Chapter 3, “Customizing InfoPrint XT,” on page 21

Describes how to customize InfoPrint XT through:

- Environment variables
- Custom parameter mapping files
- Transform directives

It also describes how to interpret the No Operation (NOP) structured fields that InfoPrint XT can include in the Advanced Function Presentation™ (AFP™) data stream that it produces.

Chapter 4, “Loading Xerox resources,” on page 37

Describes how to load Xerox resources and how to print samples of the AFP resources that InfoPrint XT generates from Xerox resources.

Chapter 5, “Submitting Xerox jobs for data stream conversion,” on page 59

Describes how to process and print Xerox jobs. It also includes methods to streamline the specification of InfoPrint XT conversion parameters and InfoPrint Manager job and document attributes.

Chapter 6, "Transferring jobs with Download for z/OS," on page 67

Describes how to set up Download for z/OS to work with InfoPrint XT. After you set this up, you can submit jobs from systems that have IBM Print Services Facility (PSF) for z/OS installed and convert them with InfoPrint XT.

Chapter 7, "Troubleshooting InfoPrint XT," on page 83

Describes how to diagnose and correct problems that might occur when you load Xerox resources or process Xerox jobs. It also discusses the information that you need to place a service call.

This publication contains these appendixes:

Appendix A, "Conversion parameters for converting Xerox jobs," on page 93

Describes the Xerox conversion parameters that are specific to InfoPrint XT.

Appendix B, "InfoPrint XT messages: 5016-*nnn*," on page 105

Lists the messages that InfoPrint XT can issue when you use InfoPrint XT commands.

Appendix C, "Resource converter messages: 5018-*nnn* ," on page 117

Lists the messages that InfoPrint XT can issue when you load Xerox fonts, images, and logos.

Appendix D, "Resource utility messages and data stream converter messages: AIO $xxxnnnx$," on page 121

Lists the messages that the InfoPrint XT resource utility and data stream converter can issue when they process Xerox resources and jobs.

Appendix E, "DJDE report messages: ALTER through XMP," on page 147

Lists the messages that InfoPrint XT can issue when you request a report of the Dynamic Job Descriptor Entry (DJDE) commands that a Xerox job contains.

This publication also contains two glossaries, a bibliography, and an index.

Conventions used in this publication

This publication uses conventions for:

- Highlighting
- Command syntax and example syntax, including special characters in commands

Highlighting

These are the types of highlighting:

Bold Identifies commands, attributes, files, directories, and other items whose names the InfoPrint XT installation predefines. For example, the **pdxtx2afp** command and the **%PDXTINSTDIR%** directory.

Italic Identifies a variable item whose actual name or value you supply. For example, *local* or *ldest*. Italics also identify publication titles.

Bold Italic

Syntax that combines bold and italic highlighting identifies a specific keyword or parameter name that you enter exactly as shown, and a variable value that you supply. For example, ***xjdl=jdl_name***. Enter the string ***xjdl=***. *jdl_name* is a value that you choose.

Understanding the syntax notation and the use of special characters

These rules apply to the syntax diagrams and examples that this publication contains:

- Text that you type is case-sensitive. For example, **p0612c.fnt** and **F\$P0612C**; type the font names in lowercase and uppercase characters exactly as they are shown.
- Do not type any vertical bars, underscores, or brackets that command examples include:
 - A vertical bar or bars between two or more entries means that you can specify only one of the values. [**xspacing=none** | **word** | **char**] is an example of this notation. You can specify one of these values:
 - **xspacing=none**
 - **xspacing=word**
 - **xspacing=char**
 - An underscore identifies the default value for an option or parameter. InfoPrint XT uses the default value if you do not explicitly specify a value. **none** was the default value in the previous example.
 - Brackets around an item in an example mean that the item is optional. You do not have to include it.

Note: This does not apply to the brackets that you can include in pattern-matching strings.

Entering commands that this publication describes

Procedures in this publication direct you to enter InfoPrint XT commands, such as **pdxtloadres** and **pdxtx2afp**. For installations that use InfoPrint Manager with InfoPrint XT, certain procedures also instruct you to enter InfoPrint Manager commands, such as **pdls** and **pdpr**. Enter these commands from a Windows Command Prompt window; InfoPrint XT does not provide a user interface.

Related information

Other sources of information that you can use with InfoPrint XT are:

Web sites

For additional information about InfoPrint Solutions Company products, including printers and software:

<http://www.infoprint.com>

InfoPrint Solutions Company information centers

Information centers provide online, task-oriented information about InfoPrint Solutions Company hardware and software products:

<http://publib.boulder.ibm.com/infocenter/printer/v1r1/index.jsp>

Publications

InfoPrint Solutions Company provides both hardcopy and viewable versions of publications. For a list of publications that you might find useful with the InfoPrint XT installation, see “Bibliography” on page 171.

InfoPrint XT manual (man) pages

An InfoPrint XT installation includes online help in the form of man pages. To see the InfoPrint XT man pages, enter the **pdxtman** command, followed by the name of the man page. For example:

```
pdxtman pdxt
```

For a complete list of all the man pages that InfoPrint XT supplies, access the **pdxt** man page. Enter **pdxtman pdxt** or enter the **pdxtman** command by itself.

Summary of changes

These are brief descriptions of the functional updates to InfoPrint XT for Windows (InfoPrint XT) and the corresponding documentation changes that this publication contains:

Support for content-sensitive medium maps

The InfoPrint XT data stream converter uses a sequentially numbered naming convention for medium map names in the inline form definition that it generates as it converts a Xerox job. The numbering sequence begins with AIO00001. You can now instruct InfoPrint XT to create medium map names that reflect certain characteristics of the medium map, such as whether it specifies simplex or duplex printing. InfoPrint XT provides the new **xcsmmname** conversion parameter that you can use to control the format of the medium map name. See these topics:

- “Working with content-sensitive medium map names” on page 34
- The **xcsmmname** conversion parameter on page 96

Emulation of the Xerox ALIGN operator command

InfoPrint XT can emulate the Xerox ALIGN operator command, which lets users adjust the position of page images in the AFP output that InfoPrint XT creates. InfoPrint XT uses two new conversion parameters for the alignment emulation. The **xalign** parameter controls how InfoPrint XT aligns the AFP output with the pages of the job. The **xinvertalign** parameter controls how InfoPrint XT aligns the AFP output for pages that Xerox OUTPUT INVERT commands or INVERT Dynamic Job Descriptor Entries (DJDEs) invert. See these topics:

- The **xalign** conversion parameter on page 93
- The **xinvertalign** conversion parameter on page 97

Duplicate inline image checking for online jobs

Xerox online jobs can use GRAPHIC DJDEs instead of IMAGE DJDEs to specify inline images. This can impact performance and increase the processing time that InfoPrint XT requires for the job. If the job contains many inline images, but there are few unique images and most are duplicates of images that were specified earlier in the job, the performance impact is greater. When possible, the best solution is to change the application that generated the job. To improve performance, the application should use IMAGE DJDEs to specify the inline images instead of GRAPHIC DJDEs. If changing the application is not possible, you can use the new **xckdupnlimg** conversion parameter. When you specify **xckdupnlimg=yes**, InfoPrint XT does a preliminary check of each inline image that a GRAPHIC DJDE specifies. If it determines that the image is a duplicate, InfoPrint XT does not process the image again. It uses the AFP output from the first conversion of the duplicated image that it generated earlier in the job. See page 95.

Note: The **xckdupnlimg** conversion parameter does not apply to offline jobs.

Controlling automatic carriage control verification

You use the existing **xcc** conversion parameter to specify the type of carriage controls, ANSI or machine code, that the data for an online job contains. In addition, InfoPrint XT automatically reads the first records of

the job to further verify the type of carriage controls. If it detects a different type of carriage control, InfoPrint XT overrides the type that the **xcc** parameter specifies. With Download for z/OS, InfoPrint XT can use a download directive to convert ANSI carriage controls to machine code before it converts the job. When the job contains both ANSI and machine code carriage controls and you do not use Download for z/OS to transfer online jobs, the AFP output that InfoPrint XT generates can be wrong if the InfoPrint XT automatic carriage-control type verification returns an incorrect result. InfoPrint XT now provides the **xpcctest** conversion parameter that lets you prevent InfoPrint XT from reading the first records of the job. InfoPrint XT then uses the value of the **xcc** parameter to determine the type of carriage controls that the data for the job contains. See these new and revised topics:

- **-p** download directive on page 76
- **xcc** conversion parameter on page 94
- **xpcctest** conversion parameter on page 99

Enhancements for spacing characters in Xerox fonts

With the default **xspacing=none** conversion parameter and value, InfoPrint XT converts spacing characters in Xerox fonts to Presentation Text Object Content Architecture (PTOCA) text characters in the AFP that it creates. It does the same for overlays that it creates from Xerox FRMs. You can now instruct InfoPrint XT to create Relative Move Inline (RMI) structured fields in the AFP output instead of the PTOCA text characters.

This function is useful if you need to manually correlate Xerox fonts to AFP fonts rather than use the AFP fonts that InfoPrint XT creates. For example, you might need to correlate a Xerox Magnetic Ink Character Recognition (MICR) font to an AFP MICR font that is specifically tuned for a particular Intelligent Printer Data Stream (IPDS) printer. In this case, a code page conflict might arise if the spacing characters in the Xerox font do not match any of the available characters in the manually correlated AFP font.

You can avoid this type of conflict by instructing InfoPrint XT to generate RMI structured fields in the AFP output or in any overlays that it generates for Xerox fonts that you load with the new **-b** option of the **pdxloadres** command. If you manually correlate an AFP font to a Xerox font that you load with the **-b** option, InfoPrint XT does not look for corresponding spacing characters in the AFP font.

You can also use a new conversion parameter, **xspcrmi**, to control how InfoPrint XT interprets spacing characters in the Xerox fonts that FILE DJDEs specify. InfoPrint XT does not look for corresponding spacing characters in a manually correlated AFP font for any Xerox font that it loads when the **xspcrmi=yes** conversion parameter is in effect for the job.

For this enhancement to take effect, you must do these tasks after you install the product update:

- Use the **pdxloadres** command and its **-b** option to reload any Xerox fonts for which you want to use this function.
- Use the **pdxloadres** command to reload all forms that use the affected fonts.
- Add the **xspcrmi=yes** conversion parameter to jobs that use FILE DJDEs to specify fonts for which you want to use this function.

See these topics:

- The **-b** option for the **pdxloadres** command on page 42
- The **xspcrmi** conversion parameter on page 101

Enhancements to Xerox shading support

The InfoPrint XT default is to convert Xerox shading patterns to raster dot patterns in the AFP output. InfoPrint XT also converts shading characters in Xerox FRMs to raster dot patterns in the corresponding AFP overlays. InfoPrint XT now can convert shading patterns and shading characters to grayscale. This improves the overall visual results and increases the readability for any text that is superimposed on the shading. The enhancement consists of these changes:

- The **pdxloadres** command has a new **-c** option that lets you specify how InfoPrint XT converts shading characters when it processes FORMS\$, FORMSX, and ISISPX fonts in FRMs.
- The new **xshading** conversion parameter controls how InfoPrint XT converts shading patterns in Xerox data streams. This parameter also controls how InfoPrint XT converts inline FRMs that FILE DJDE commands specify.

For this enhancement to take effect, you must do these tasks after you install the product update:

- Reload any FRMs that contain shading that the SHADING parameter of the BOX FSL command controls. Use the **pdxloadres** command with the **-c** option to reload the resources.
- Specify the **xshading** conversion parameter for jobs that contain standard Xerox shading from FORMS\$, FORMS, and ISISPX fonts. Also specify this conversion parameter for jobs that use FILE DJDEs with inline FRMs.

See these topics:

- The **-c** option of the **pdxloadres** command on page 43.
- The **xshading** conversion parameter on page 100.
- Restrictions apply when you use InfoPrint XT shading support. See page 4.

OUTPUT INVERT command and INVERT DJDE support

InfoPrint XT provides a new conversion parameter, **xhonorinvert**, that lets InfoPrint XT process jobs that contain OUTPUT INVERT commands and INVERT DJDEs. For this enhancement to take effect, you must do these tasks after you install the product update:

- Reload any Job Description Libraries (JDLs) that contain OUTPUT INVERT commands.
- Specify **xhonorinvert=yes** for jobs that invoke JDLs or Job Descriptor Entries (JDEs) that specify OUTPUT INVERT or that contain INVERT DJDEs.

For information about the **xhonorinvert** conversion parameter, see page 96.

OUTPUT XSHIFT command and XSHIFT DJDE support

InfoPrint XT can now process OUTPUT XSHIFT commands and XSHIFT DJDEs with the existing **xhonorshift** conversion parameter. For this enhancement to take effect, you must do these tasks after you install the product update:

- Reload any JDLs that contain OUTPUT XSHIFT commands.
- Specify **xhonorshift=yes** for jobs that invoke JDLs or JDEs that specify OUTPUT XSHIFT or that contain XSHIFT DJDEs.

For information about the **xhonorshift** conversion parameter, see page 96.

Generation of NOP structured fields for C DJDE text

Mixed Object Document Content Architecture (MO:DCA) No Operation (NOP) structured fields can store information in the AFP data stream. In addition to NOPs for OTEXT, AFP fonts and page segments, and highlight color, you can now instruct InfoPrint XT to generate NOPs for comments that C DJDEs contain. This is useful if you do indexing tasks on the AFP that InfoPrint XT generates from Xerox jobs that use C DJDEs. For more information, see these topics:

- The **xcmt2nop** conversion parameter on page 95
- The **XRXC DJDE** NOP keyword on page 33

MICR font support

Magnetic ink character recognition (MICR) fonts are used with financial applications, such as those that generate bank and payroll checks. Externally, standard Xerox MICR fonts are typically identified by their names. Xerox fonts whose names begin with **E13B**, **E14B**, or **CMC7** prefix can be MICR fonts. When it loads a Xerox MICR font, InfoPrint XT uses internal bit settings in the AFP font that it generates to differentiate AFP MICR fonts from non-MICR AFP fonts. InfoPrint XT lets you request AFP MICR fonts when you load Xerox MICR fonts through the new **-M** option of the **pdxtloadres** command. You can also use the new **xmicrfont** conversion parameter to instruct InfoPrint XT to generate AFP MICR fonts from Xerox MICR fonts that FILE DJDEs in a job specify. For more information, see these topics:

- “Using the **pdxtloadres** command to load Xerox resources” on page 42
- **xmicrfont** conversion parameter on page 98

This publication also includes editorial, stylistic, and typographical updates. These updates are not marked with revision bars.

Chapter 1. Introducing InfoPrint XT

This chapter briefly describes the components of InfoPrint XT for Windows (InfoPrint XT), how it processes jobs, and its non-supported or restricted functions. InfoPrint XT is the Xerox transform technology that you can use to print Xerox jobs on high-speed, Intelligent Printer Data Stream (IPDS) printers.

Note: This publication identifies the system on which you install InfoPrint XT as the Windows system.

InfoPrint XT overview

InfoPrint XT transforms Xerox Line Conditioned Data Stream (LCDS) jobs and metacode jobs to jobs that you can print on IPDS printers. InfoPrint XT converts the jobs and the resources that they require, such as fonts and forms, to the Advanced Function Presentation (AFP) format. AFP is part of the InfoPrint Solutions Company presentation architectures for creating, storing, retrieving, viewing, and printing data.

Benefitting from AFP and InfoPrint XT

The presentation architectures represent documents in a data format that is independent of the methods used to capture or create them. Documents might contain combinations of text, images, graphics, and bar code objects in device-independent formats.

You can send the same document to a variety of destinations, including printers, without altering its format for the type of destination. Many methods exist by which you can generate Xerox LCDS and metacode data streams and send them to Xerox printers. Now, you can send Xerox jobs directly to InfoPrint XT without altering the applications that generate the jobs.

InfoPrint XT converts the jobs, which you can then print on a wide variety of IPDS printers. For example, you can print the jobs on InfoPrint 4100 printers, which are nonimpact, all-points-addressable, laser electrophotographic printers. These continuous-forms printers are ideal for the high volume, production printing environment. If your printing needs require cut-sheet printers, with several bins for a variety of paper stocks, you can print the jobs on an InfoPrint 2190 or InfoPrint 2210 printer. The InfoPrint 2190 prints at 110 pages-per-minute, and the InfoPrint 2210 prints at 90 pages-per-minute. Both are modular, multifunction cut-sheet printers for use in the production printing environment.

For in-depth information about the presentation architectures, see the publications listed for “Advanced Function Presentation (AFP)” on page 171. For detailed information about InfoPrint Solutions Company printers, visit this Web site:

<http://www.infoprint.com>

Xerox resources and the InfoPrint XT load process

Xerox jobs use a combination of printable and non-printable resources. In the Xerox environment, these resources are on the Xerox printer hardware. Before you convert a Xerox job to AFP, you must first convert its printable resources to AFP. You convert the Xerox resources to their AFP counterparts through the InfoPrint

XT load process. The InfoPrint XT **pdxloadres** command does the actual conversion. You also convert the non-printable resources.

Printable Xerox resources

Xerox jobs use specific printable Xerox resources, such as fonts, forms, images, and logos. Table 1 lists the major types of printable Xerox resources and their equivalent AFP resources.

Table 1. Printable Xerox resources and their AFP functional equivalents

Xerox Resources	AFP Resources
Xerox FNT (fonts)	AFP code pages, character sets, and coded fonts
Xerox FRM (forms)	AFP overlays
Xerox IMG (images)	AFP page segments
Xerox LGO (logos)	AFP page segments

Non-printable Xerox resources that InfoPrint XT uses

Xerox jobs use other types of Xerox resources, such as job descriptor libraries (JDLs) and page descriptor entries (PDEs). These resources control the data stream characteristics and the printing environment. While you must also load these Xerox resources on the Windows system, the load process does not produce any corresponding AFP resources. Instead, the InfoPrint XT **pdxloadres** command stores the necessary formatting information that the resources contain. When you process a job that uses these resources, InfoPrint XT creates a unique AFP form definition for the job from some of the formatting information. This list describes the non-printable Xerox resources that InfoPrint XT processes and uses:

Cluster Library (LIB)

Defines clusters, or groups of printer trays.

Copy Modification Entry (CME)

Defines changes to the printing characteristics of a job on a copy-by-copy basis.

Job Descriptor Library (JDL)

A collection of compiled job descriptor entries (JDEs), which define the unique characteristics of one or more Xerox jobs.

Page Descriptor Entry (PDE)

A set of statements that define formatting information for each page of a job. This includes information such as the page orientation, the starting print line, and the fonts that the page uses.

Routing Text (TST)

Contains information that is specific to separator sheets, which precede individual Xerox reports.

Stocksets (STK)

Defines the types of paper that the job requires and associates them with the clusters of printer trays, as defined by **clustr.lib**.

For more information about loading resources and the messages that InfoPrint XT can issue during the load process, see:

- Chapter 4, "Loading Xerox resources," on page 37
- Appendix C, "Resource converter messages: 5018-*nnn* ," on page 117

- “InfoPrint XT resource utility messages” on page 121

Non-printable Xerox resources that InfoPrint XT does not use

The other types of non-printable Xerox resources that you can load through InfoPrint XT are:

- **CMD**
- **DAT**
- **FSL**
- **ICT**
- **IDR**
- **ISL**
- **JSL**
- **MSC**
- **PCH**
- **TMP**

InfoPrint XT copies information for these non-printable resources when you load them. InfoPrint XT does not use these resources; it copies them for reference purposes only. For more information, see “Types of Xerox resources that you can load” on page 38.

Xerox data stream conversion

The InfoPrint XT data stream converter reads and interprets internal Xerox entries and commands when it converts the Xerox job to AFP.

Xerox START commands and InfoPrint XT conversion parameters

When you print a job on a Xerox printer, you enter a specific START command to run the job. The START command specifies the starting JDL and JDE pair to use for the job; the JDL and JDE specify the characteristics of the job. For example, they can specify an initial set of fonts and whether duplexing is in effect. They can also specify carriage control assignments and the delimiters that identify Dynamic Job Descriptor Entry (DJDE) commands. You might have a single START command that applies to all jobs, or several START commands that apply to specific jobs. When you submit a job to InfoPrint XT, you pass this same information to the data stream converter using InfoPrint XT conversion parameters. For more information, see these topics:

- Appendix A, “Conversion parameters for converting Xerox jobs,” on page 93, which describes the InfoPrint XT parameters that you pass to the data stream converter.
- “InfoPrint XT data stream converter messages” on page 132, which describes the messages that the data stream converter issues.

Dynamic Job Descriptor Entries (DJDEs)

Xerox jobs can contain DJDEs, which invoke printable and non-printable Xerox resources and control the printing environment. You can use DJDEs in both LCDS and metacode jobs. They can make modifications to the printing environment that the starting JDL and JDE pair specifies. The data stream converter interprets a specific set of DJDE commands. For more information, see “Supported and unsupported Xerox DJDE and PDL commands” on page 8.

Methods of sending jobs to the Windows system and submitting them to InfoPrint XT

You can use these methods to send Xerox LCDS and metacode jobs to the Windows system and to process them with InfoPrint XT:

Download for z/OS

Download for z/OS is a separately orderable, licensed feature of IBM Print Services Facility (PSF) for z/OS. You can use it to transfer Xerox jobs over a TCP/IP network to a directory on the Windows system. You also need InfoPrint Manager for Windows (InfoPrint Manager), and an MVS Download receiver that it provides, to process jobs through Download for z/OS.

InfoPrint Select

With InfoPrint Select, you can send jobs from word processors, spreadsheet programs, and other desktop applications. InfoPrint Manager provides the InfoPrint Select client; it is not a part of InfoPrint XT.

LPR If you have InfoPrint Manager installed, you can send Xerox jobs from any system that supports the line printer control program through the **lpr** command.

pdpr command

If you have InfoPrint Manager installed, you can use the InfoPrint Manager **pdpr** command to submit Xerox jobs for processing. For detailed information about the use of this command, see the InfoPrint Manager documentation listed in the "Bibliography" on page 171.

pdtx2afp command

You can use the InfoPrint XT **pdtx2afp** command to process Xerox jobs and create the corresponding AFP versions of the jobs.

For more information about processing jobs, see Chapter 5, "Submitting Xerox jobs for data stream conversion," on page 59.

Xerox job restrictions

These restrictions apply to Xerox jobs that you process with InfoPrint XT:

Accounting statistics

Xerox printers can provide information about job processing, which includes information that is specific to the reports in the job. You can use this information for purposes such as billing or supplies management. InfoPrint XT also collects accounting information at the report level. However, InfoPrint XT does not provide a method of matching the Xerox accounting information to the number of pages that actually print on the printer hardware. The InfoPrint XT accounting information is specific to the pages that it converts.

FILE DJDE support

In the Xerox environment, Xerox printers can only process one job at a time. InfoPrint XT can process two or more jobs concurrently. Do not submit two jobs at the same time that specify different versions of the same resource. Also, do not process any job that specifies more than one version of the same resource in the reports in the job. Unpredictable results can occur in both cases.

Grayscale substitution for Xerox shading

InfoPrint XT can interpret and convert Xerox shading patterns and characters to grayscale. This improves the overall visual results and increases the readability for any text that is superimposed on the shading. These restrictions apply to grayscale substitution when you use the **xshading** conversion parameter or the **-c** option of the **pdxftloadres** command:

- Grayscale interpretation of Xerox standard shading is only useful with printers, archival solutions, and viewing solutions that support Logical Page and Object Area Coloring.
- In FRM conversion, this enhancement is only effective for shading that is accomplished by the SHADING LIGHT | MEDIUM | HEAVY parameter of the BOX FSL command. It has no effect on conversion of highlight color shading that is accomplished by the FILL parameter of the BOX FSL command.
- In data stream conversion, this enhancement is only effective for shading that is accomplished by the use of the shading characters in FORMS\$, FORMSX, or ISISPX fonts. The shading enhancement has no effect on shading that is produced by text fonts, custom fonts, or graphics fonts.
- When converting data streams that use the FILE DJDE to specify one or more inline FRMs, this enhancement controls how InfoPrint XT interprets shading in all the inline FRMs in the job, regardless of whether the input data stream is LCDS or metacode.
- The dot patterns in certain Xerox standard shading code points do not fill the entire area that the code point represents, which leaves white space on one or more sides. The grayscale that InfoPrint XT generates for these and other Xerox shading code points fills the entire area and leaves no white space. In certain shading configurations, this can cause solid grayscale areas to look larger than their dot pattern counterparts.

Highlight-color form processing

InfoPrint XT does not support highlight-color shading in Xerox FRMs. If the use of highlight color is restricted to only the text in the form, InfoPrint XT successfully converts the form. However, the resulting AFP overlay is black and white.

Highlight-color image processing

InfoPrint XT can process Xerox highlight-color images that use Restricted Raster Encoding and produce black-and-white AFP page segments that correspond to the images. These restrictions apply to the highlight-color image processing that InfoPrint XT does. InfoPrint XT only supports:

- Interleaving by pixel for the color sample and the black sample that the Xerox image contains. InfoPrint XT does not support interleaving by scan line or interleaving by compressed-pixel vector array.
- Highlight-color images that use the portrait scan orientation.
- A maximum of two samples per pixel; one color sample and one black sample.
- A maximum sample value of one.

For detailed information about Xerox highlight-color images and Restricted Raster Encoding, see the Xerox Interpress documentation:

- *Xerox Interpress Raster Encoding Standard*: XNS Standard 178506, January, 1985
- *Xerox Interpress Electronic Printing Standard*: XNSS 048601, January, 1986

Highlight-color job processing

You can submit Xerox jobs that contain color-related metacodes or PDL commands, such as ICATALOG, IDR, ILIST, and INKINDEX. However, InfoPrint XT does nothing with the color information. The jobs print in black and white.

OTEXT messages

You can process jobs that contain OTEXT messages with InfoPrint XT. However, InfoPrint XT does not display the OTEXT message text or suspend printing.

SHIFT and XSHIFT JDL and DJDE commands

InfoPrint XT supports the Xerox SHIFT and XSHIFT JDL and DJDE commands with these exceptions:

1. You must specify the **xhonorshift=yes** conversion parameter for InfoPrint XT to process jobs that contain SHIFT and XSHIFT commands. The default is that InfoPrint XT ignores SHIFT and XSHIFT commands.
2. Xerox LPS printers save DJDE SHIFT values between jobs, but they do not save JDL/JDE SHIFT values. Therefore, if the first SHIFT DJDE in a job specifies a value for only one side, the value for the other side is the last DJDE value specified for that side, even if a previous, unrelated job specified that value.

InfoPrint XT initializes each job with SHIFT values of zero for both front and back sides. If the first SHIFT DJDE in a job specifies a value for only one side, the value for the side that was not specified is zero. Output does not shift on the unspecified side until InfoPrint XT finds a SHIFT value for that side in a JDL/JDE or in a DJDE in the job.

This restriction does not apply to XSHIFT.

3. When a Xerox LPS finds SHIFT DJDEs in the data stream, it sometimes misplaces graphic images for the page on which the new SHIFT values take effect. For example, in portrait mode, the images might move lower on the page instead of shifting to the right or to the left. This might even affect images that are specified by the FRM being printed on the page.

InfoPrint XT correctly shifts all page segments as specified by the SHIFT command when you set up InfoPrint XT to honor SHIFT commands. InfoPrint XT does not try to emulate the incorrect image placement occasionally introduced by the Xerox LPS.

This restriction does not apply to XSHIFT.

Spacing characters in Xerox fonts

With the default **xspacing=none** conversion parameter and value, InfoPrint XT converts spacing characters in Xerox fonts to Presentation Text Object Content Architecture (PTOCA) text characters in the AFP that it generates. It does the same for overlays that it generates from Xerox FRMs. You can instruct InfoPrint XT to create Relative Move Inline (RMI) structured fields in the AFP output instead of the PTOCA text characters. You use the **-b** option of the **pdxloadres** command or the **xspcrmi** conversion parameter to generate RMI structured fields.

Controlling how InfoPrint XT interprets spacing characters is intended for limited use with a small subset of Xerox fonts in any given resource set. Use this function only if you have manually correlated Xerox fonts to AFP fonts and code page conflicts occur with Xerox spacing characters and AFP

code points. This function does not correct any other type of code page conflicts that occur after manually correlating Xerox resources to AFP resources.

Stapling support

When you submit jobs that request stapling, these restrictions apply to InfoPrint XT processing:

- You must specify the **xhonorstaple=yes** conversion parameter for InfoPrint XT to process jobs that contain stapling instructions. The default is that InfoPrint XT ignores stapling commands.
- Differences exist in the stitching hardware of InfoPrint Solutions Company cut-sheet printers and Xerox LPS cut-sheet printers. Because of this, InfoPrint XT does not support the Xerox stapling commands FACEUP and NTO1, either when used independently or when used only with each other. InfoPrint XT only recognizes FACEUP and NTO1 when a job uses them with the STAPLE command. Together, STAPLE=YES, FACEUP=YES, and NTO1=YES or NTO1=*n* indicate that stapling should occur. *n* is a positive number.
- When a Xerox LPS printer processes the STAPLE command, it always drives the staples into the upper-left corner of the sheets, as viewed in portrait orientation. This is true even if the report is actually in landscape orientation. If you specify the **xstapleorient=yes** conversion parameter for the job, InfoPrint XT detects any reports whose first pages are landscape. It then staples them in the lower-left corner of the sheets, as viewed in portrait orientation. This is equivalent to the upper-left corner when you view the sheet in landscape orientation.
- InfoPrint XT assumes that the default printing order that was established on the Xerox printer at SYSGEN is 1TON. If you specify NTO1 at printer SYSGEN, you must include the **xstaplesysgen=nto1** conversion parameter. Otherwise, InfoPrint XT ignores stapling commands in JDLs and JDEs that jobs invoke internally if the starting JDL and JDE pair does not specify that stapling should occur.
- The Xerox NTO1 command forces the LPS printer to delay output processing until the input processing for the entire report is complete. For this reason, input processing might not recognize the end of the report until it identifies the beginning of the next report. This might not occur until input processing identifies a BANNER page at the beginning of the next job. This can cause the printer to retain attributes from one job and apply them to subsequent jobs. InfoPrint XT does not apply attributes of one job to the next job. Instead, it processes each job using only the attributes that are specific to the job.
- InfoPrint XT cannot detect if the destination IPDS printer supports stapling. When you specify stapling with the **xhonorstaple=yes** conversion parameter and value and then convert a Xerox job that has JDEs that specify STAPLE=YES, InfoPrint XT includes stapling information in the AFP that it generates. This is always the case, even if the destination printer does not support stapling.
- Each of the InfoPrint Solutions Company printer models that support stapling imposes its own limits on the number of sheets, the paper weights, and the paper sizes that it can staple. InfoPrint XT cannot automatically detect those limits. It does not reference any information about them when it generates an AFP job that includes stapling information. You must set the maximum number of sheets to staple with the **xstaplemax** conversion parameter, as needed.

Note: For more information about the `xhonorstaple`, `xstapleorient`, `xstaplesysgen`, and `xstaplemax` parameters, see Appendix A, “Conversion parameters for converting Xerox jobs,” on page 93.

Other restrictions

These InfoPrint XT restrictions apply to considerations other than Xerox job conversion:

240-pel resolution support

InfoPrint XT only supports 300-pel resolution. If you have older printer models that support 240-pel resolution, do not direct jobs from InfoPrint XT to them.

Receipt of jobs over a channel connection

For combined InfoPrint XT and InfoPrint Manager installations, InfoPrint XT uses the standard InfoPrint Manager methods for sending jobs to the Windows system. Neither InfoPrint Manager nor InfoPrint XT provides a method of sending jobs over a channel connection.

Processing jobs on tape

InfoPrint XT does not provide a method of processing jobs on tape.

Processing resources on tape

InfoPrint XT does not provide a method of processing resources on tape.

Compilers for Xerox JSLs and FSLs

InfoPrint XT does not provide compilers for Xerox Job Source Libraries (JSLs) or Forms Source Libraries (FSLs).

Double-byte character set (DBCS) support

InfoPrint XT supports the conversion of Xerox DBCS LCDS and metacode jobs. It also stores information from the Xerox DBCS fonts that the jobs require for use during data stream conversion. However, InfoPrint XT does not directly convert the Xerox DBCS fonts to the AFP DBCS outline fonts that it requires for DBCS data stream processing. It also does not automatically create the grid-mapping files that it requires to print DBCS output. These fonts and files are available from InfoPrint Solutions Company as a separately priced option. For more information about AFP DBCS outline fonts and grid-mapping files for use in Xerox DBCS data stream conversion, contact your marketing representative.

Note: You can use AFP DBCS outline fonts from other sources. Those fonts must fully conform to the MO:DCA FOCA standards; see *Data Stream and Object Architectures: Font Object Content Architecture (FOCA) Reference*, S544-3285.

Supported and unsupported Xerox DJDE and PDL commands

InfoPrint XT does not support a subset of less-commonly used Xerox DJDE and PDL commands. Table 2 lists both the supported and unsupported commands.

Table 2. Supported and unsupported PDL and DJDE commands

Supported	Unsupported ¹
ALTER	BARCODE, BSEQ, BSIDE, BSKIP, RBAR
ASSIGN	BDELETE, BSELECT, RSELECT, RFEED
BATCH	BLANKTYPE
BEGIN	BTEXT

Table 2. Supported and unsupported PDL and DJDE commands (continued)

Supported	Unsupported ¹
BFORM	DESTINATION
BOF	EXPAGE
C	EXPORT
CANCEL	ICATALOG
COLLATE	IDFAULT
COPIES	IDR
DATA	ILIST
DEPT	IMISMATCH
DUPLEX	INK ²
END	INKINDEX
FACEUP ³	IRESULT
FCB	ISUBSTITUTE
FEED	ITEXT
FILE	LOGO ⁵
FONTINDEX	MAP
FONTS	PALETTE
FORMAT	SAVE
FORMS	SEFFNT, SEFMAP
GRAPHIC	SF1FUNCTION
IMAGE	SF2FUNCTION
INVERT	SNUMBER
JDE	SPLIT
JDL	SRECOVER
MARGIN	STIMING
MODIFY	TMODE
NT01 ³	TRANS
NUMBER	XMP
OTEXT ⁴	
OVERPRINT	
PMODE	
RFORM	
RTEXT	
SHIFT ⁴	
SIDE	
STAPLE	
STOCKS	
TOF	
XSHIFT	

Notes:

- ¹ InfoPrint XT ignores these commands when it finds them in a job. InfoPrint XT processes the job and issues informational messages that state that it ignored the commands.
- ² This is a CME parameter.
- ³ InfoPrint XT only supports this command when you use it with the STAPLE command.
- ⁴ Restrictions apply to this command. See page 6.
- ⁵ If you compile an FSL to an FRM that contains LOGO references in its internal font list or logo list, InfoPrint XT supports those references. However, InfoPrint XT does not support a LOGO DJDE in the data stream.
- InfoPrint Solutions Company can negotiate support for non-supported DJDEs on the basis of customer need.

|
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Chapter 2. Installing and configuring InfoPrint XT

This chapter describes how to install software, configure a base InfoPrint XT for Windows (InfoPrint XT) system, and test the installation.

Understanding software requirements

Before you install InfoPrint XT you must first install other required software products and their prerequisites. You might also want to install an optional software product that can benefit the installation.

Required operating system

Install one of these Microsoft Windows versions:

- Windows 2000 Professional, Service Pack 4 (SP4) or later
- Windows 2000 Server, SP4 or later
- Windows Server 2003 Standard Edition, Service Pack 2 (SP2) or later
- Windows Server 2003 R2 Standard Edition, Service Pack 1 (SP1) or later
- Windows XP Professional, SP2 or later

Note: Make sure that you install the latest Service Pack and any fixes for the operating system before you install any other software, such as one of the UNIX emulation tools or InfoPrint XT. If you do not, problems can occur.

Required UNIX emulation tools

You must install a Microsoft UNIX emulation tool before you install InfoPrint XT. The tool that you install depends on the Windows version that you use. You can download the software for the tools, without charge, from the Microsoft Web site: <http://www.microsoft.com>

Microsoft Services for UNIX

You must install Microsoft Windows Services for UNIX (SFU), version 3.5 if you use one of these versions of Windows:

- Windows 2000 Professional
- Windows 2000 Server
- Windows Server 2003 Standard Edition
- Windows XP Professional

Download the **SFU35SEL_EN.exe** file from Microsoft. Although the Web site provides detailed information about SFU system requirements, note these minimum and maximum considerations:

- 16 MB of RAM (minimum).
- 20 MB of hard disk space (minimum). Depending on the SFU installation options that you select, SFU can require up to 360 MB of hard disk space.
- CD-ROM drive.
- SFU is not compatible with file allocation table (FAT) file systems. You must install SFU in a partition that was formatted for the NT file system (NTFS).

You can select **Standard Installation** when you install SFU. Also, consider enabling setuid behavior and case-sensitivity during installation. Setuid behavior controls aspects of security and user privileges. Case-sensitivity changes the normal case-insensitivity of the Windows environment. The Microsoft Web site contains detailed information about these topics.

Microsoft Subsystem for UNIX-based Applications

You must install Microsoft Subsystem for UNIX-based Applications (SUA) if you use Windows Server 2003 R2 Standard Edition. Part of SUA resides in Windows itself. After that Windows component is installed, you download the remaining utilities for SUA from Microsoft. Use the latest information from Microsoft to complete the SUA installation; you can use this procedure as a checklist.

From the Windows Server 2003 R2 Standard Edition workstation:

1. Click **Start->Control Panel->Add or Remove Programs->Add/Remove Windows Components**.
2. Select **Subsystem for UNIX-based Applications** from the list. Click **Next** and complete the steps to add the SUA component.
3. Download the **Utilities and SDK for Subsystem for UNIX-based Applications_X86.exe** file from the Microsoft Web site.
4. Access the wizard for the utilities and complete the installation. You can select **Standard Installation**.

Notes:

1. You only need to install the base utilities and the base SDK components.
2. Consider enabling setuid behavior and case-sensitivity during installation. Setuid behavior controls aspects of security and user privileges. Case-sensitivity changes the normal case-insensitivity of the Windows environment. The Microsoft Web site contains detailed information about these topics.

Optional printer driver software

InfoPrint Solutions Company recommends InfoPrint Manager for Windows (InfoPrint Manager) version 2.2 for printer management and for Advanced Function Presentation (AFP) job management. InfoPrint Manager is also useful if you process jobs other than Xerox jobs. For example, this software supports PostScript and PCL job processing, and job management. InfoPrint Manager also provides a configurable transform object that you can use specifically with InfoPrint XT when you process Xerox jobs.

Notes:

1. *InfoPrint Manager for Windows: Getting Started G544-5717*, describes all the InfoPrint Manager and Windows software requirements. It also describes how to install InfoPrint Manager. You must create a minimum configuration for the InfoPrint Manager installation.
2. In addition to completing the base installation, make sure that you install the latest InfoPrint Manager 2.2 updates.
3. Examples of InfoPrint Manager commands in this publication assume that you have set the InfoPrint Manager **PDPRINTER** environment variable for the installation.
4. Make sure that you can print non-Xerox jobs through InfoPrint Manager before continuing with the InfoPrint XT-specific tasks in this chapter. Verification includes submitting jobs from host systems or through other products, such as Download for z/OS, and printing from the command line with the InfoPrint Manager **pdpr** command.

5. You must complete other configuration tasks for combined InfoPrint Manager and InfoPrint XT installations. See "InfoPrint Manager configuration tasks."

Installing InfoPrint XT

To install InfoPrint XT:

1. Close any applications that you are running on the Windows system.
2. Log on to the system with a Windows computer administrator account.
3. Put the InfoPrint XT for Windows Base CD in the CD-ROM drive. The installation program starts automatically.
4. Read the installation **readme** file on the CD for any last-minute updates that are not available in this publication.
5. Click **Next** on the Welcome window to display the License Agreement. You must accept the terms of the License Agreement to continue with installation.
6. Follow the directions that the installation program provides. Depending on the requirements of the installation, you can use installation directories that you specify, or you can use the default installation directories. If you specify directories that do not exist on the Windows system, the installation program creates them.
7. Depending on the installation path that you specify, the installation program might require you to restart the system. If the installation program requires a system restart, you must do so before you can use InfoPrint XT.

Note: The InfoPrint XT installation program automatically creates a directory structure for its software program files, and a directory structure for the variable data that it creates when it processes Xerox resources and jobs. Because the directory-structure names are lengthy, this publication uses this syntax for the names:

%PDXTINSTDIR%

This represents the base installation directory that contains the subdirectories for the InfoPrint XT software program files. The default base installation directory is:

C:\Program Files\IBM\Infoprint XT

If you specified a different location during installation, substitute that path for the base installation directory for all occurrences of **%PDXTINSTDIR%** in this publication. For example, if you chose to install InfoPrint XT in the directory **C:\mypdxt**, a publication reference to **%PDXTINSTDIR%\samples** represents:

C:\mypdxt\samples

%PDXTWORKDIR%

This represents the directory structure that InfoPrint XT uses for variable data. The installation program appends **\var\pdxt** to the base installation directory. If you used the default installation directory, a publication reference such as **%PDXTWORKDIR%\resources\common** represents:

C:\Program Files\IBM\Infoprint XT\var\pdxt\resources\common

InfoPrint Manager configuration tasks

If you use InfoPrint Manager with InfoPrint XT, you must do these tasks. These tasks do not apply to installations that do not have InfoPrint Manager installed.

Creating the InfoPrint XT configurable transform

Use the **pdxtctxform** command to create an InfoPrint XT configurable transform object in the InfoPrint Manager server. This command creates the transform object with the name **x2afp** and sets the transform attributes that InfoPrint XT requires. For example, it sets the **lcids** and **metacode** values for the **document-formats-supported** attribute.

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The syntax of the **pdxtctxform** command is:

pdxtctxform [*servername* | *:]

[*servername* | *:]

As an option, specifies the name of the InfoPrint Manager server. If you do not specify a server name, InfoPrint XT tries to determine the name of the default InfoPrint Manager server. It then creates the transform in that server.

Usage notes

These items apply when you use the **pdxtctxform** command:

- The InfoPrint Manager server name is case-sensitive.
- If an InfoPrint XT configurable transform object already exists when you enter the **pdxtctxform** command, the command resets all attributes of the transform object to the values that InfoPrint XT requires.
- The user account from which you enter the **pdxtctxform** command must have InfoPrint Manager authorization to enter the **pdls** command for servers. The user account must also have authorization to enter these commands for transform objects:

- **pdls**
- **pdcreate**
- **pdset**

See the InfoPrint Manager documentation listed in the “Bibliography” on page 171, as required.

- When the **pdxtctxform** command finishes successfully, it does not return a completion message. The command returns only the command prompt. To verify that the command created the transform object, enter this command:

```
pdls -c transform servername:
```

InfoPrint Manager returns information that is similar to this:

Identifier	Transform Library
-----	-----
x2afp	command-line-transform

Return codes from the **pdxtctxform** command

Return codes from the **pdxtctxform** command are:

- | | |
|----------------|---|
| 0 | The command successfully created the transform. |
| EINVAL | An error exists with one of the command options. |
| ENOENT | The command did not find a server. |
| E2BIG | You specified both a server name and used *: to specify the server. |
| ENOATTR | A command option is missing. |

ETIMEDOUT The **pdl**s command did not respond to a query.

other Any other return codes that are not in this list are return codes from C functions. See "Return code numbers" on page 113 for explanations.

+ - - - - - End of Programming Interface information - - - - - +

Using the **pdxsetdest** command to update InfoPrint Manager actual destinations

Use the **pdxsetdest** command to set up an InfoPrint Manager actual destination to accept and process Xerox Line Conditioned Data Stream (LCDS) jobs and Xerox metacode jobs. The **pdxsetdest** command sets these attributes for the actual destination:

- **document-formats-supported**

InfoPrint XT adds **lcds** and **metacode** to the values already supported by the actual destination.

- **transform-sequence**

InfoPrint XT adds **x2afp** to the values already supported by the actual destination.

+ - - - - - Programming Interface information - - - - - +

The syntax of the **pdxsetdest** command is:

pdxsetdest *adestname* [...]

adestname [...]

Specifies the name of one or more InfoPrint Manager actual destinations.

Usage notes

These items apply when you use the **pdxsetdest** command:

- You must create the InfoPrint XT configurable transform object before you enter the **pdxsetdest** command. See page 14.
- The user account from which you enter the **pdxsetdest** command must have InfoPrint Manager authorization to enter these commands for actual destinations:
 - **pddisable**
 - **pdenable**
 - **pdl**s
 - **pdset**

Streams used by the **pdxsetdest** command

The **pdxsetdest** command uses some file descriptors while it configures actual destinations and ignores others:

fd0 (STDIN) The command does not use this stream.

fd1 (STDOUT)

The command does not use this stream.

fd2 (STDERR)

The command writes messages to this stream.

Return codes from the `pdxsetdest` command

Return codes from the `pdxsetdest` command are:

<code>0</code>	The command successfully updated the specified actual destinations.
<code>EINVAL</code>	An error exists with one of the command options.
<code>E2BIG</code>	You specified an actual destination name that was too long.
<code>ENOATTR</code>	You specified a command option without a value.
<code>ENOENT</code>	You did not specify an actual destination name.
<code>other</code>	Any other return codes that are not in this list are return codes from C functions. See "Return code numbers" on page 113 for explanations.

+ - - - - - End of Programming Interface information - - - - - +

Adding Windows user account names for InfoPrint Manager security

InfoPrint Manager uses Access Control Lists (ACLs) to protect your printing system by restricting the level of access that a user or a group of users has to certain operations. Although InfoPrint XT has no specific security requirements, you must complete certain InfoPrint Manager security tasks. At a minimum, the user account name that you use in combined InfoPrint Manager and InfoPrint XT installations must be a member of the InfoPrint Manager **admin** group. For information about managing security, see *InfoPrint Manager for Windows: Procedures*, G544-5814.

Note: You can check the InfoPrint Manager status of a specific user account name using the InfoPrint Manager Management Console.

Testing the InfoPrint XT installation

Test the InfoPrint XT installation before you begin processing Xerox jobs through InfoPrint XT. There are two methods of processing an InfoPrint XT-supplied test job. The method to use depends on whether InfoPrint Manager is also installed. If you have a combined InfoPrint XT and InfoPrint Manager installation, see "Testing with InfoPrint Manager" on page 17.

Testing with the `pdxloadres` and `pdxtx2afp` commands

InfoPrint XT provides a small Xerox test job and the Xerox resources that it requires in the `%PDXTINSTDIR%\testjob` directory. Use the InfoPrint XT `pdxloadres` command to load the resources and the `pdxtx2afp` command to process the test job.

To test the InfoPrint XT installation:

1. Access a Windows Command Prompt window.
2. Make the directory that contains the test job the current directory. From the command line, enter:
`cd %PDXTINSTDIR%\testjob`
3. Load the resources for the test job:
`pdxloadres -n "*" -g pdxttest`

4. Copy the parameter mapping file for the test job to the %PDXTWORKDIR% directory:

```
copy pdxtx2afp.map C:\Program Files\IBM\Infoprint XT\var\pdxt
```

You can also use Windows Explorer to copy the file.

5. Submit the test job. Replace *AFPfile* with a file name that you choose:

```
pdxtx2afp -i pdxttest.xrxin -o AFPfile -p -opa=jobname=PDXTTEST
```

InfoPrint XT writes information from the conversion process to standard error.

6. Verify that the job converted with a return code of 0 and that the job contains four pages. Scroll through the messages and verify that it contains these messages:

```
5016-513 Impressions (pages): 4
```

```
5016-502 2007-11-11 13:08:28 MDT (rc 0) - transform ended.
```

Testing with InfoPrint Manager

In addition to a Xerox test job and its resources, InfoPrint XT provides an InfoPrint Manager attributes file for the test job. The installation process writes this file to the %PDXTINSTDIR%\testjob directory. Use the attributes file to test the initial InfoPrint XT installation in a combined InfoPrint Manager and InfoPrint XT environment.

To test the InfoPrint Manager and InfoPrint XT installation:

1. Access a Windows Command Prompt window.
2. Make the directory that contains the test job the current directory. From the command line, enter:

```
cd %PDXTINSTDIR%\testjob
```

3. Load the resources for the test job:

```
pdxtloadres -n "*" -g pdxttest
```

4. Submit the test job:

```
pdpr -d ldest -X pdxttest.att pdxttest.xrxin
```

ldest is the name of the InfoPrint Manager logical destination that sends jobs to the actual destination that you have configured to print Xerox jobs.

InfoPrint Manager prints four test pages. The first and second test pages are converted Xerox LCDS data that print in portrait and landscape orientation. The third and fourth test pages are converted Xerox metacode data, which also print in portrait and landscape orientation. Figure 1 on page 18 shows an example of the first test page.

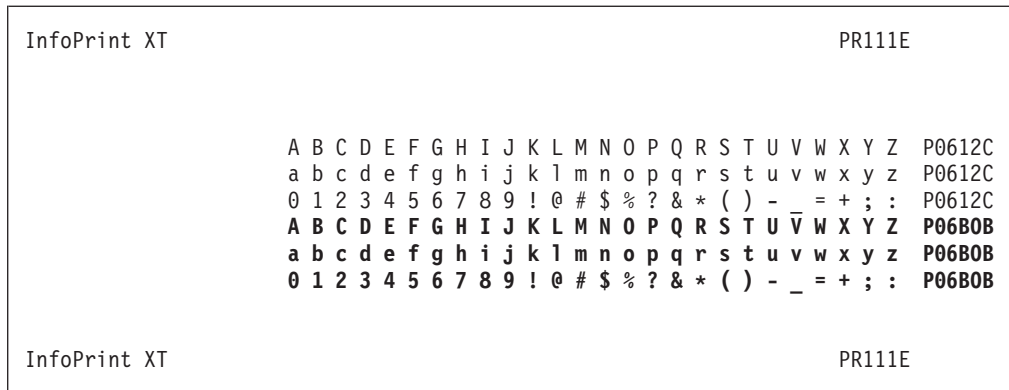


Figure 1. InfoPrint XT test page

Applying an InfoPrint XT product update

When an InfoPrint XT update is available, you can install it on the system to run the latest level of InfoPrint XT. The update can be on a CD that you receive, or you can download updates from this Web site:

<ftp://ftp.software.ibm.com/printers/products/pdxt/fixes>

Notes:

1. Back up the InfoPrint XT %PDXTINSTDIR% directory and the %PDXTWORKDIR% directory before you install any update. Use standard Windows procedures to do the backup. For example, use the Backup Wizard.
2. The update program does not remove or change any information in the %PDXTWORKDIR% directory structure.
3. Product update file names have this format:
pdxt-2.1.0.*nn*.exe

nn specifies the update level.

To apply an InfoPrint XT product update:

1. Close any applications that you are running on the Windows system.
2. Log in to the system with a Windows computer administrator account.
3. Depending on whether you have the update on a CD or in a file that you have downloaded, do one of these steps:
 - Put the InfoPrint XT for Windows Base CD in the CD-ROM drive. The installation program starts automatically.
 - Click **Start**→**Run**→**Browse** and locate the **pdxt-2.1.0.*nn*.exe** file. Select the file and then click **Open**→**OK**. The installation program starts.
4. Read the installation **readme** file for any last-minute information that is not available in this publication.
5. Follow the directions that the update program provides. The update program determines directory information and other necessary settings from the original installation.
6. The update program might require you to restart the system. If the update program requires a system restart, you must do so before you can use InfoPrint XT.

Rejecting an InfoPrint XT product update

If you apply an InfoPrint XT update, and then want to return the Windows system to a previous version of InfoPrint XT, use this procedure. This procedure does not affect any of the resources or settings specific to InfoPrint XT.

To reject an InfoPrint XT product update:

1. Click **Start→Control Panel→Add or Remove Programs**.
2. Highlight the InfoPrint XT entry and click **Change / Remove**. Follow the instructions to complete the removal.
3. Restart the Windows system.
4. Reinstall the InfoPrint XT base product, and then install the InfoPrint XT update at the version you want.

Note: When you reinstall InfoPrint XT, specify the same directory for the data folder that you previously used. Otherwise, InfoPrint XT cannot locate resources and settings specific to the previous installation.

Permanently removing the InfoPrint XT software

To permanently remove the InfoPrint XT software:

1. Close any applications that you are running on the Windows system.
2. Log on to the system with a Windows computer administrator account.
3. Open a Windows Command Prompt window.
4. Do this step only if you use InfoPrint Manager with InfoPrint XT. Otherwise, continue with the next step:
 - a. Enter these commands for each InfoPrint Manager actual destination that is currently configured to accept Xerox jobs:

```
pddisable -c printer adestname
```

```
pdset -c printer -x document-formats-supported-=lcls adestname
```

```
pdset -c printer -x document-formats-supported-=metacode adestname
```

```
pdset -x transform-sequence-=x2afp adestname
```

```
pdenable -c printer adestname
```

adestname is the name of the actual destination.
 - b. Enter this command to delete the InfoPrint XT configurable transform:

```
pddelete -c transform servername:x2afp
```

servername is the name of the InfoPrint Manager server that contains the transform object.
5. Remove the InfoPrint XT software files:
 - a. Click **Start→Control Panel→Add or Remove Programs**.
 - b. Highlight the InfoPrint XT entry and click **Change / Remove**. Follow the instructions to complete the removal.
6. Manually delete the InfoPrint XT directories:
 - a. Use the method appropriate to your version of Microsoft Windows to open Windows Explorer.

- b. Select and delete the InfoPrint XT %PDXTWORKDIR% working directory.
The default working directory is **C:\Program Files\IBM\Infoprint XT\var\pdxt**.
 - c. Select and delete the InfoPrint XT %PDXTINSTDIR% installation directory.
The default installation directory is **C:\Program Files\IBM\Infoprint XT**.
7. Restart the Windows system.

Chapter 3. Customizing InfoPrint XT

This chapter describes how to customize InfoPrint XT for Windows (InfoPrint XT). All procedures in this chapter are optional; you do not have to do them to use InfoPrint XT.

Terms used in this chapter

Some topics in this chapter use the term *ServerName_JobIdentifier*. In combined InfoPrint Manager for Windows (InfoPrint Manager) and InfoPrint XT installations, *ServerName_JobIdentifier* is the InfoPrint Manager job identifier. The job identifier consists of the name of the InfoPrint Manager server that processed the job, followed by an underscore and a 10-digit number.

If you process a job using the **pdxtx2afp** command, InfoPrint XT uses a format of *jobname-jobID-n* as the job identifier. InfoPrint XT automatically derives the *jobname* and the *jobID*, and assigns a unique sequence number *n*. If InfoPrint XT cannot derive the job name and the job ID, it uses **UNKNOWN-UNKNOWN-n** as the job identifier.

This chapter also uses specific terms to represent directories on the Windows system. **%PDXTINSTDIR%** represents the InfoPrint XT directory for its software files. The default directory is:

C:\Program Files\IBM\Infoprint XT

%PDXTWORKDIR% represents the InfoPrint XT directory for variable data. The default directory is:

C:\Program Files\IBM\Infoprint XT\var\pdxt

If you installed InfoPrint XT in a different directory, or if you change the working directory, substitute the location that you specified for the base installation location of **C:\Program Files\IBM\Infoprint XT** in the paths. See “Installing InfoPrint XT” on page 13, and “Controlling the working directory that InfoPrint XT uses for variable data (PDXTWORKDIR)” on page 22.

Setting environment variables

You can set environment variables to control certain aspects of InfoPrint XT resource processing and job processing. If you set the InfoPrint XT environment variables as system variables, they are available to all user accounts on the system. If you set them as user variables, they are only available for the user account that you used when you set them.

Notes:

1. To change system variables, you must log in with a user account that is a member of the Windows computer administrator group.
2. To access the Windows interface from which you can set environment variables, click **Start→Control Panel→System**. Then, click the **Advanced** tab and click **Environment Variables**.
3. After you add an environment variable or change the value for an environment variable, restart the Windows system.

Controlling the working directory that InfoPrint XT uses for variable data (PDXTWORKDIR)

The **PDXTWORKDIR** environment variable controls the working directory that InfoPrint XT uses for variable data. The default is that InfoPrint XT uses subdirectories in the **%PDXTWORKDIR%** directory to store the files that it creates or copies for Xerox resources and jobs. For example, InfoPrint XT uses subdirectories of **%PDXTWORKDIR%\resources** to store information for Xerox resources that you have loaded. InfoPrint XT creates the **%PDXTWORKDIR%** directory during installation. To have InfoPrint XT create subdirectories and store files in a different location on the Windows system, use the **PDXTWORKDIR** environment variable. The variable value that you specify becomes the replacement for **%PDXTWORKDIR%**.

Notes:

1. Include the drive designation for the directory in the **Variable value** field of the Windows System Properties interface.
2. You can only use one working directory at any given time. For example, you cannot use the default **%PDXTWORKDIR%** directory for some jobs and a different directory, such as **C:\mypdxt**, for other jobs.
3. If the directory you specify does not exist, InfoPrint XT creates it.

Controlling how InfoPrint XT interprets directory names (PDXT_WINPATH2UNIX)

The InfoPrint XT commands, such as the **pdxloadres** command that you use to load resources, run in the Microsoft Windows Services for UNIX (SFU) environment on the Windows system. They always convert any DOS directory names that you specify with command options, and that use backslashes, to the corresponding UNIX directory names. For example, InfoPrint XT commands always convert a DOS directory reference, such as **C:\myfonts**, to a reference to the UNIX **/dev/fs/C/myfonts** directory.

You can also specify Windows directory names with forward slashes. For example, a DOS directory reference of **C:/myfonts** is valid. However, **C:/myfonts** is also a valid directory name in the UNIX environment. Whether InfoPrint XT treats the directory passed through a command option as a DOS directory or a UNIX directory affects whether it converts the directory name. A converted directory name of **/dev/fs/C/myfonts** and an unconverted directory name of **/C:/myfonts** are two distinct UNIX directories.

You can explicitly control whether InfoPrint XT treats directory names that use forward slashes as DOS directories, or as UNIX directories using the **PDXT_WINPATH2UNIX** command. The settings for the variable are:

- 1 InfoPrint XT treats the directory as a DOS directory and converts it to the corresponding UNIX directory name. This is the default.
- 0 InfoPrint XT treats the directory as a UNIX directory and does not do any conversion. It uses the directory name as it is.

Table 3. DOS-to-UNIX directory conversions

Command	PDXT_WINPATH2UNIX setting	Resulting directory
pdxloadres -n "c:\directory*" ¹	Either 1 or 0	/dev/fs/C/directory

Table 3. DOS-to-UNIX directory conversions (continued)

Command	PDXT_WINPATH2UNIX setting	Resulting directory
<code>pdxloadres -n "/directory/*"</code>	1	<code>/dev/fs/C/directory</code> ²
<code>pdxloadres -n "/directory/*"</code>	0	<code>/directory</code>

- ¹ InfoPrint XT always treats this as a DOS directory, regardless of the **PDXT_WINPATH2UNIX** setting, because it contains backslashes.
- ² The conversion process derives the drive letter from the drive in use when you entered the command.

Notes:

1. The use of the **PDXT_WINPATH2UNIX** environment variable is intended for advanced users, or as directed by a technical support representative.
2. The environment variable does not apply to the directory that the **PDXTWORKDIR** environment variable specifies, or to the directory that the **PDXTINSTDIR** environment variable specifies.

Controlling the default arguments when you load resources (PDXTLOADRES_ARGS)

You can change the default values that InfoPrint XT uses for the options of the **pdxloadres** command. You use this command to load Xerox resources; see “Using the **pdxloadres** command to load Xerox resources” on page 42. You can use the **PDXTLOADRES_ARGS** environment variable to specify new default values for the options. For example, you might want the default value for the **-m** option to be **A4** instead of **letter**.

These are examples of values that you can enter in the **Variable value** field of the Windows System Properties interface:

- If the option that you want to specify does not have an associated value, use this format:

`-r`

This causes InfoPrint XT to automatically add the **-r** option any time you enter the **pdxloadres** command.

- If the option or options that you want to specify have an associated value and the value does not contain spaces, use this format:

`-m A4 -s word`

`-n C:\xyz*.fnt`

- If the value contains a space, enclose the value in double quotation marks:

`-n "C:\Resource Files\xyz*.fnt"`

Controlling the default arguments when you process jobs (PDXTX2AFP_ARGS)

You can change the default values that InfoPrint XT uses when you convert Xerox jobs with the **pdxtx2afp** command. See “Using the **pdxtx2afp** command to process Xerox jobs” on page 61. You can use the **PDXTX2AFP_ARGS** environment variable to specify new default values. For example, you might want the default value of the **-x** option to specify a certain JDL and JDE pair.

These are examples of values that you can enter in the **Variable value** field of the Windows System Properties interface:

- To specify a single option and value:
-g payroll
- To specify the **-x** option with more than one value, use double quotation marks:
-x "xjdl=tonl xjde=df1t xc1b=pay"
- To specify one option and value, and to specify the **-x** option with more than one value, also use double quotation marks:
-g payroll -x "xjdl=tonl xjde=df1t xc1b=pay"

Note: InfoPrint XT uses the value of the **PDXTX2AFP_ARGS** environment variable only when you enter the **pdxtx2afp** command. If you convert jobs by submitting them to InfoPrint Manager, InfoPrint XT ignores this environment variable.

Controlling resource-load messages for FILE DJDE jobs (PDXT_AIOLXDFE_TRACE)

You can instruct InfoPrint XT to include messages about the resource-load process for jobs that use FILE DJDE commands. InfoPrint XT can write the messages to the **x2afp.lst** file; see "x2afp.lst file" on page 90. The **PDXT_AIOLXDFE_TRACE** environment variable controls the disposition of the resource-load messages. Set this variable to **1** to include the messages. Remove the environment variable to suppress the messages.

Activating trace functions for the font converter (PDXT_XR2FAPI_TRACE)

If you place a service call, the technical support representative might ask you to run a trace of the InfoPrint XT font converter to aid in diagnosing a problem. The **PDXT_XR2FAPI_TRACE** environment variable controls tracing in the font converter. Set this variable to **1** to activate tracing. Remove the environment variable to turn tracing off.

Note: You must include the **-e listings** command option and value with the **pdxtloadres** command after you activate tracing.

Activating trace functions for the image and logo converter (PDXT_XR2IAPI_TRACE)

If you place a service call, the technical support representative might ask you to run a trace of the InfoPrint XT image and logo converter to aid in diagnosing a problem. The **PDXT_XR2IAPI_TRACE** environment variable controls tracing in the image and logo converter. Set this variable to **1** to activate tracing. Remove the environment variable to turn tracing off.

Note: You must include the **-e listings** command option and value with the **pdxtloadres** command after you activate tracing.

Controlling the content of error messages (PDXT_INTMSGIDS)

Use the **PDXT_INTMSGIDS** environment variable to control the level of detail that InfoPrint XT provides in the messages that it issues for basic operations. You can use this environment variable for diagnostic purposes, and at the direction of a technical support representative. When you set this variable, InfoPrint XT writes the name of the module that issued the message before the message number. It

also writes a line number from the module, which indicates the line at which the condition that caused the message occurred. The expanded output is similar to this:

```
pdxtclnwork: (aioxcwrk0139) 5016-001 The command option -o is not valid.
```

This message shows that the error resulted from a **pdxtclnwork** command and that the error occurred at line **0139** of the module **aioxcwrk**.

Set the **PDXT_INTMSGIDS** variable to **1** to include module and line number information. Remove the environment variable to suppress the module and line number information.

Controlling the format of the error sheet (PDXT_MSGxxxxxx)

If you submit a Xerox job for processing in a combined InfoPrint Manager and InfoPrint XT installation and severe errors occur that prevent InfoPrint XT from generating AFP output, InfoPrint XT generates an error sheet. InfoPrint XT uses four environment variables and the InfoPrint Manager **line2afp** transform to generate the error sheet. Typically, you only change the default settings for these environment variables if you use a medium other than letter, such as A4 paper:

PDXT_MSGFOLDCMD

Controls how the message lines of the error sheet wrap on the page. InfoPrint XT uses standard input (STDIN) to pass the messages to the command specified by the environment variable. Then, InfoPrint XT pipes the output from the command to the InfoPrint Manager **line2afp** command. If you do not set this variable, InfoPrint XT uses **fold -w 120**.

PDXT_MSGFONTDEF

Controls the font definition that InfoPrint XT uses to generate the error sheet. If you do not set this variable, InfoPrint XT uses **trc=no chars=4282**.

PDXT_MSGFORMDEF

Controls the form definition that InfoPrint XT uses to generate the error sheet. If you do not set this variable, InfoPrint XT uses **F1MG0110**.

PDXT_MSGPAGEDEF

Controls the page definition that InfoPrint XT uses to generate the error sheet. If you do not set this variable, InfoPrint XT uses **P1A08682**.

Note: When InfoPrint XT generates the error sheet, it also writes the results of **line2afp** transform processing for the error sheet. The **line2afp.lst** file in the working directory for the job contains the information. The default working directory is **%PDXTWORKDIR%\jobs\ServerName_JobIdentifier**.

Environment variables for directives

Two other InfoPrint XT environment variables are specific to transform directives and to installations that use Download for z/OS. Because other considerations for their use exist, this publication describes them in individual topics. See:

- “Using transform directives” on page 29
- “Enabling download directives” on page 78

Creating a custom parameter mapping file

When you convert a Xerox job, you must specify certain parameters that equate to the Xerox START command for the job. The parameters include the starting Job Descriptor Library (JDL) and Job Descriptor Entry (JDE) pair. You might also specify other parameters that further define the job, such as how to process stapling commands. InfoPrint XT can use a parameter mapping file, which you create, to streamline the process of setting conversion parameters. You can automatically set certain parameters by instructing InfoPrint XT to use the pass-through values of the **pdxtx2afp** command to trigger which parameters to apply. The mapping file assigns parameters using these job characteristics:

- Job class
- Destination for the job
- Form for the job
- Job ID
- Job name

For information about the **-p** option of the **pdxtx2afp** command, see page 62. Also see the `%PDXTINSTDIR%\testjob\pdxtx2afp.map` file, which is a mapping file that you can use with the test job that InfoPrint XT supplies.

Notes:

1. Any parameters that you specify with the **pdxtx2afp** command override the same parameters in the mapping file.
2. If you use InfoPrint Manager with InfoPrint XT, you can also use the parameter mapping file. Use the **destination-pass-through** document attribute to pass job characteristics. These are examples:

```
destination-pass-through="-opa=jobname=pdxttest"
```



```
destination-pass-through="-opa=class=D"
```
3. If you submit jobs using Download for z/OS, the **pdxtdownload** program automatically sets the **destination-pass-through** attribute. See "What the InfoPrint XT pdxtdownload program does" on page 67.

Parameter mapping file syntax rules

You can control how InfoPrint XT processes jobs that have specific characteristics using a custom parameter mapping file. Create a file with the name **pdxtx2afp.map** and then add entries that support the requirements of the installation. After you complete the entries, store the file in the `%PDXTWORKDIR%` directory. Table 4 shows the format of an entry in a mapping file.

Table 4. Format of the transform parameter mapping file

Mapping file lines	Explanation
<code># text</code>	Comments
<code>keyword=value</code>	Pass-through parameter and value to match
<code>parameter</code>	Conversion parameter to set
<code>parameter</code>	Additional conversion parameters, as required

Use one of these as the keyword: **class**, **dest**, **forms**, **jobid**, or **jobname**. You can also use a special keyword and value pair, ***=***, to apply parameters to every job. ***=*** specifies that any keyword and value pair is a match; InfoPrint XT applies the associated parameters to every job that it processes.

The parameters that you can assign are **-g**, **-r**, **-t**, and **-x**. These parameters correspond to a subset of the processing parameters that you can specify with the **pdxtx2afp** command.

These rules apply to the parameter mapping file:

- You must use lowercase keyword names in the mapping file: **class**, **dest**, **forms**, **jobid**, or **jobname**.
- The values for the keywords are case-sensitive. For example, **prt1** and **PRT1** are two distinct values.
- You can use asterisks and question marks as wildcard characters for keyword values. You can also use brackets to specify ranges of characters:
 - To specify all jobs whose names begin with **ORB**:
`jobname=ORB*`
 - To specify all jobs with a destination of **PRT**, followed by any three characters:
`dest=PRT???`
 - To specify all jobs with a class value of any single character from **A** through **M**:
`class=[A-M]`
- You cannot use wildcard characters or regular expressions to define the keyword to match. For example, **job*** is not valid for matching both the **jobid** and **jobname** keywords.
- InfoPrint XT ignores blank lines and comment lines. Lines that begin with a number sign, **#**, are comments.
- All *keyword=value* pairs must start in column one. The expression must include the equal sign, **=**, and the expression cannot contain spaces.
- Parameter lines cannot start in column one; use at least one space before the parameter.
- When a keyword match occurs, InfoPrint XT applies all the parameter lines that follow, up to the next keyword line or the end of the file.
- You cannot include comments on keyword lines or parameter lines.
- Two or more keywords on a single line represent an *and* condition. Jobs must match all keywords to use the associated parameters.
- Two or more keywords on separate lines represent an *or* condition. Jobs can match any one of the keywords to use the associated parameters.
- InfoPrint XT checks each keyword group in the file. A job can match more than one keyword group, so it uses parameters from several groups. For the **-g**, **-r**, and **-t** parameters, if the job matches several keywords groups that specify the same parameter, InfoPrint XT uses the value from the last group. For the **-x** parameter, InfoPrint XT merges all different conversion parameters together in the final **pdxtx2afp** command. For example, if one keyword group specifies **-x xcopies=5** and another specifies **-x xclb=pay1**, InfoPrint XT includes both **xcopies** and **xclb** in the final command. If more than one keyword group specifies the same parameter, for example **-x xjdl=strton** and **-x xjdl=dpljdl**, InfoPrint XT uses the last value.

Figure 2 on page 28 is an example of a completed parameter mapping file.

```

#-----#
# Set the default for all jobs that do not match any #
# other criteria #
#-----#
*~*
-x"xjde=base xjdl=base1"

#-----#
# Set parameters for FORMS=STD and CLASS=K jobs #
#-----#
forms=STD class=K
-x"xjde=std xjdl=dpljdl"

#-----#
# Set parameters for FORMS=RED or CLASS=J jobs #
#-----#
forms=RED
class=J
-x"xjde=pay1 xjdl=bills"

#-----#
# Set parameters for DEST=PRT17 #
#-----#
dest=PRT17
-x"xjde=strt xjdl=prt17"

#-----#
# Set parameters for payroll jobs #
#-----#
jobname=PAYROLL
-x"xjde=strt xjdl=prt17"

#-----#
# Class D jobs, class E jobs, or any jobs whose #
# names starts with INV use resources from #
# %PDXTWORKDIR%\resources\inventory. #
#-----#
class=D
class=E
jobname=INV*
-g inventory

#-----#
# Jobs whose names start with PAY* use AFP #
# resources in the D:\pay\secure\monthly directory #
#-----#
jobname=PAY*
-r D:\pay\secure\monthly

```

Figure 2. Completed parameter mapping file

Verifying the parameter specification of the mapping file

When you convert a job, InfoPrint XT writes messages to the `pdxtx2afp.log` file. If InfoPrint XT sets parameters from the parameter mapping file, it writes entries similar to these in the transform arguments section:

```

5016-501 2007-11-01 21:51:40 (pid 83951854) - transform started

5016-503 Transform arguments (/dev/fs/C/Program Files/IBM/Infoprint XT/var/pdxt/pdxtx2afp.map)
5016-504 -x "xjde=pay1 xjdl=bills"

```

Using transform directives

InfoPrint XT provides a set of internal directives that you can activate to control certain aspects of the overall data stream conversion process. For example, you can instruct InfoPrint XT to capture traces of the job data stream as it flows through the conversion process. You primarily use the transform directives for diagnostic purposes or when you require special modifications to the transform process.

Transform directives and syntax

You can set these transform directives:

-a0 | -a1

For installations that use InfoPrint Manager with InfoPrint XT, this specifies whether InfoPrint XT captures the InfoPrint Manager document and job attributes. If you specify **-a1**, InfoPrint XT writes the directive output to the **jobattr.ipm** file in the working directory for the job. The working directory is **%PDXTWORKDIR%\jobs\ServerName_JobIdentifier**. The default is that InfoPrint XT does not capture the InfoPrint Manager attributes.

-j0 | -j1

Specifies whether InfoPrint XT enables online (**jes3211**) processing of carriage controls in the job. **-j1** enables online processing. **-j0** disables online processing. The default is that InfoPrint XT does carriage-control processing for online jobs.

-k0 | -k1

Specifies whether InfoPrint XT retains the working directory for a job after the data stream conversion process finishes. The default that InfoPrint XT uses for the directive depends on how you run the **pdtx2afp** command. If you use InfoPrint Manager with InfoPrint XT and you configure InfoPrint XT as an InfoPrint Manager configurable transform, the default is **-k1**. InfoPrint XT retains the working directory, which is **%PDXTWORKDIR%\jobs\ServerName_JobIdentifier**, until InfoPrint Manager removes the job from the system. If you specify **-k0**, InfoPrint XT discards the working directory immediately after data stream conversion finishes.

If you enter the **pdtx2afp** command directly, the working directory is **%PDXTWORKDIR%\jobs\jobname-jobID-n** and the default is **-k0**.

Note: This directive applies only when InfoPrint XT creates the working directory. It does not apply if you use the **-w** option of the **pdtx2afp** command to specify a working directory.

-t TraceType ...]

Specifies how InfoPrint XT traces a job as it flows through the conversion process. InfoPrint XT writes all output from the **-t** directive to the working directory for the job. Valid values are:

- **x2afp.in** - Saves a copy of the original Xerox job.
- **x2afp.out** - Saves a copy of the AFP job generated by data stream conversion.
- **x2afp** - Saves both the original Xerox job and the generated AFP job.

Note: Multiple occurrences of the **-t** directive are cumulative. For example, you can specify **-t x2afp.in** with the **PDXTX2AFP_DIRECTIVES** environment variable, and specify **-t x2afp.out** with the **document-comment** attribute. In this case, InfoPrint XT saves both

the Xerox input to, and the AFP output from the conversion process. You can also specify more than one value on a single occurrence of the **-t** directive.

[-x "conversion_parameters"]

Specifies conversion parameters. Any parameters that you specify with this directive override the same parameters if you specify them with other methods. For example, if you specify them with the **-x** option of the **pdxtx2afp** command or if you specify them with the **other-transform-options** attribute in the InfoPrint Manager environment. Do not use this directive to specify parameters such as **xjdl** or **xjde** for your production environment. You might find this directive useful as a temporary override to the production environment for testing purposes. For more information about conversion parameters, see Appendix A, "Conversion parameters for converting Xerox jobs," on page 93.

Trace transform directives

For service purposes, a technical support representative might ask you to activate a trace. The technical support representative instructs you to use this format:

```
-x xztrace=all1:a112
```

Use this only at the direction of a technical support representative. The technical support representative will provide further information about how to locate the trace output and provide it to service for analysis.

Activating transform directives

Several methods exist for activating InfoPrint XT transform directives. InfoPrint XT checks for an environment variable first and for a directives file second. If you enter the **pdxtx2afp** command directly, InfoPrint XT then checks for the **-t** command option. If you use InfoPrint Manager with InfoPrint XT, InfoPrint XT checks for a document attribute instead of the command option.

PDXTX2AFP_DIRECTIVES environment variable

You can add the environment variable as a system variable so that directives are active for any user account that runs the transform. Restart the Windows system after you add the environment variable. These are examples of values that you can enter in the **Variable value** field of the Windows System Properties interface:

```
-t x2afp.out -k1
```

```
-a1
```

%PDXTWORKDIR%\pdxtx2afp.directives file

This is a plain text file that contains the directives. Each directive entry is specific to a destination. If you use InfoPrint Manager with InfoPrint XT, the destination is the name of an InfoPrint Manager actual destination. Otherwise, the destination is the destination that the **-p** option of the **pdxtx2afp** command specifies. You can also use ***** as a destination so that the associated transform directive applies to all job destinations. You can include comments and blank lines in the directives file. Delimit comments with a number sign, **#**. These are examples of the types of entries that you can make in the transform directives file:

```
#-----#  
# For all destinations, capture the InfoPrint Manager #  
# attributes in the jobattr.ipm file. #  
#-----#  
*: -a1
```

```

#-----#
# Capture and keep the Xerox input and the AFP #
# output for all jobs with a destination of #
# PRT01. #
#-----#
PRT01: '-t "x2afp.in x2afp.out"' -k1

```

-t command option of the pdtxt2afp command

If you enter the **pdxtx2afp** command directly to convert a Xerox job, you can specify directives using the **-t** command option. See “Using the pdtxt2afp command to process Xerox jobs” on page 61.

document-comment document attribute

If you use InfoPrint Manager with InfoPrint XT, you can specify directives on a job-by-job basis, or, for a group of jobs, using InfoPrint Manager attributes. You can add the **document-comment** attribute when you submit the job. This example shows how to set an InfoPrint XT transform directive with the InfoPrint XT **document-comment** attribute:

```
document-comment='PDXTX2AFP_DIRECTIVES: -t x2afp.out -k1'
```

Notes:

1. If you specify the InfoPrint Manager **document-comment** attribute with the **pdpr -x** command option, you must include quotation marks around the entire **document-comment** attribute and value. For example:

```
-x "document-comment='PDXTX2AFP_DIRECTIVES: -x xztrace=all1:all2 -x xzdump=yes'"
```
2. If you specify more than one occurrence of the **-a**, **-j**, or **-k** transform directive using more than one method, InfoPrint XT uses the last occurrence of the directive. For example, if you specify **-j** with the **PDXTX2AFP_DIRECTIVES** environment variable and with the **document-comment** attribute, InfoPrint XT uses the value that the **document-comment** attribute specifies.

Working with InfoPrint XT AFP structured fields

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InfoPrint XT converts Xerox LCDS and metacode to AFP. The AFP that InfoPrint XT generates results in printed output that matches the original Xerox job. However, the content and form of the AFP can vary with different levels of InfoPrint XT code. The exception to this rule is a series of Mixed Object Document Content Architecture (MO:DCA) No Operation (NOP) structured fields that contain information about the job. You can use these data structures in your own application programs.

InfoPrint XT NOP structured field format

MO:DCA structured fields begin with a Structured Field Introducer that identifies the length and the function or type of the structured field. The Structured Field Data follows the Structured Field Introducer and contains the parameters that are specific to the type of structured field. Table 5 shows the format of the NOP Structured Field Identifier and Structured Field Data that InfoPrint XT inserts in the AFP data stream.

Table 5. InfoPrint XT NOP structured field format

Offset	Length	Value	Description
0	1	X'5A'	Carriage control. InfoPrint XT always uses X'5A' for the carriage control.

Table 5. InfoPrint XT NOP structured field format (continued)

Offset	Length	Value	Description
1	2	8-32767	Total length of the structured field. This does not include the carriage control byte.
3	3	X'D3EEEE'	MO:DCA No Operation structured field identifier.
6	1	X'00'	Flags. InfoPrint XT always uses X'00'.
7	2	X'0000'	Reserved bytes. InfoPrint XT always uses X'0000'.
9	8	AIOX2AFP	This parameter specifies that InfoPrint XT generated the NOP structured field. InfoPrint XT generates the parameter value in EBCDIC: X'C1C9D6E7F2C1C6D7'.
17	2	X'nnnn'	The level of the InfoPrint XT Structured Field Data. The current level is X'0000'.
19- <i>n</i>	<i>n</i>	variable	This is the actual data for the structured field. Its format depends on the level. See "InfoPrint XT AIOX2AFP NOP level X'0000' format."

InfoPrint XT AIOX2AFP NOP level X'0000' format

Table 6 shows the format of the InfoPrint XT AIOX2AFP level X'0000' NOP, which consists of four parts.

Table 6. InfoPrint XT NOP level X'0000' format

Offset	Length	Description
19	8	An EBCDIC keyword that describes the InfoPrint XT information. See "InfoPrint XT AIOX2AFP NOP keywords."
27	1	The flag byte.
28	2	The length of any associated data.
30- <i>n</i>	<i>n</i>	The data itself, if any.

InfoPrint XT AIOX2AFP NOP keywords

InfoPrint XT uses these keywords in the NOP structured fields that it generates:

CTLHEADR (X'C3E3D3C8C5C1C4D9')

InfoPrint XT generates one **CTLHEADR** record at the beginning of each job and uses it to identify whether the AFP data stream can contain **XRROTEXT** records. The values for its flag byte at offset 27 are:

- Bit 0:** Specifies whether the data stream can contain **XRROTEXT** records. **1** indicates that the data stream can contain **XRROTEXT** records. **0** indicates that the data stream does not contain **XRROTEXT** records.
- Bit 1:** Specifies whether the data stream can contain **XRROCDJDE** records. **1** indicates that the data stream can contain **XRROCDJDE** records. **0** indicates that the data stream does not contain **XRROCDJDE** records.
- Bit 2:** Reserved for future use.
- Bit 3:** Reserved for future use.
- Bit 4:** Reserved for future use.
- Bit 5:** Reserved for future use.
- Bit 6:** Reserved for future use.

Bit 7: Reserved for future use.

The **CTLHEADR** record has no associated data.

A **CTLHEADR** record that indicates the possible presence of NOPs generated from OTEXT DJDEs might contain:

```
----+----1----+----2----+----3
!..L00...AIOX2AFP..CTLHEADR...
501DEE000CCDEFCCD00CEDCCCCD800
A0D3EE000196721670033385149000
```

A **CTLHEADR** record that indicates the possible presence of NOPs generated from C DJDEs might contain:

```
----+----1----+----2----+----3
!..L00...AIOX2AFP..CTLHEADR...
501DEE000CCDEFCCD00CEDCCCCD400
A0D3EE000196721670033385149000
```

XRROTEXT (X'E7D9E7D6E3C5E7E3')

InfoPrint XT generates one **XRROTEXT** record for each OTEXT DJDE command that the job contains. The values for its flag byte at offset 27 are:

Bit 0: Specifies whether the OTEXT DJDE command suspends printing until an operator acknowledges the message. **1** indicates that the OTEXT DJDE command suspends printing.

Bit 1: Reserved for future use.

Bit 2: Reserved for future use.

Bit 3: Reserved for future use.

Bit 4: Reserved for future use.

Bit 5: Reserved for future use.

Bit 6: Reserved for future use.

Bit 7: Reserved for future use.

The data for the **XRROTEXT** record is the text of the OTEXT message.

AFPRLEVL (X'C1C6D7D9D3C5E5D3')

InfoPrint XT generates one **AFPRLEVL** record at the beginning of each AFP font and each AFP page segment that it creates from Xerox font, image, and logo resources. InfoPrint XT does not use the flag byte at offset 27. The data length at offset 28 is always **X'0002'**. The data at offset 30 is currently **X'0000'**, which indicates the base level for AFP resources created by InfoPrint XT.

XRROHCINK (X'E7D9E7C8C3C9D5D2')

InfoPrint XT also converts Xerox images that contain highlight color controls to AFP page segments. InfoPrint XT generates an **XRROHCINK** record immediately following the AFP Begin Image Object (BIM) structured field for each image object in the page segment. It uses the data section of this record to identify the fully qualified Xerox ink name for the Xerox sample that corresponds to the image object. InfoPrint XT does not use the flag byte at offset 27.

XRROCDJDE (X'E7D9E7C3C4D1C4C5')

InfoPrint XT generates one **XRROCDJDE** record for each C DJDE that the job contains. The values for its flag byte at offset 27 are:

- Bit 0: Reserved for future use.
- Bit 1: Reserved for future use.
- Bit 2: Reserved for future use.
- Bit 3: Reserved for future use.
- Bit 4: Reserved for future use.
- Bit 5: Reserved for future use.
- Bit 6: Reserved for future use.
- Bit 7: Reserved for future use.

The data for the **XRXC DJDE** record is the comment text in EBCDIC.

An **XRXC DJDE** record for comment text might contain:

```

-----1-----2-----3-----4-----5-----+
!..LÓÓ...AIOX2AFP..XRXC DJDE...Data copied from a C DJDE
503DEE000CCDEFCCD00EDECDC001C8A8489988848999484C4CDCC
A063EE0001967216700797341450094131036795406964010304145

```

+ - - - - - - - End of Programming Interface information - - - - - +

Working with content-sensitive medium map names

InfoPrint XT creates an AFP form definition for each Xerox job that it processes. It embeds the form definition in the AFP data stream that it generates from the Xerox data stream. Using the **xcsmmname** conversion parameter, you can instruct InfoPrint XT to use a specific naming convention for each medium map in the form definition. The format of the name defines the characteristics of the medium map. Table 7 describes the name format.

Table 7. Format of content-sensitive medium map names

Byte	Bit	Description
1	Not applicable	InfoPrint XT always uses X'C6'.
2 through 5	Not applicable	InfoPrint XT always uses X'F0F0F0F0'.
6		This byte consists of bit flags that represent medium map options.
	0	Reserved for future use.
	1	1 means that the medium map specifies duplexed printing. 0 specifies simplex printing.
	2	1 means that the medium map specifies an offset stack change. 0 specifies no offset stack change.
	3	Specifies the format that the E1 keyword of the Medium Modification Control (MMC) structured field uses. 1 means that the medium map specifies format one ¹ for the keyword. 0 specifies that the keyword uses format two ² .
7 through 8	Not applicable	These bytes specify the bin number in hexadecimal format.

¹ Bins are numbered 1 through 4; bin 65 is the envelope bin, and bin 100 is the manual bin.

| ² Bins are numbered 1 through 255.

| For information about the **xcsmmname** conversion parameter, see page 96.

Chapter 4. Loading Xerox resources

This chapter describes how to use InfoPrint XT for Windows (InfoPrint XT) to load the Xerox resources. Load all the Xerox resources before you begin to process jobs with InfoPrint XT. For an overview about working with Xerox resources, see the **pdxt_resources** man page that InfoPrint XT provides. Enter this command:

```
pdxtman pdxt_resources
```

For an overview on using the **pdxtloadres** command, which you use to load the Xerox resources, see the **pdxtloadres** man page.

Transferring Xerox printer resources to the Windows system

You must copy all the resources from each of your Xerox printers to a directory on the Windows system. InfoPrint XT does not provide an automated method of transferring the resources. Consult your local system support personnel for methods that you can use to transfer the resources.

Understanding the load process for Xerox resources

In the Xerox environment, all printable and non-printable Xerox resources are on the Xerox printer. When you print converted Xerox jobs on InfoPrint Solutions Company printers, the printable Xerox resources must be available in the Advanced Function Presentation (AFP) format on the InfoPrint XT system. InfoPrint XT must also have access to the information from the non-printable resources. You use the InfoPrint XT *load* process to create the AFP versions of printable Xerox resources and to gather information about the non-printable resources.

InfoPrint XT resource directories for the load process

Several directory-related actions occur when you use InfoPrint XT to load Xerox resources:

AFP resource directory

InfoPrint XT creates a directory for the AFP versions of Xerox font, image, logo, and form resources. You control the directory that InfoPrint XT creates when you enter the **pdxtloadres** command. The AFP resource directory is one of these:

- **%PDXTWORKDIR%\resources\common**. This is the common InfoPrint XT resource directory.
- **%PDXTWORKDIR%\resources\resgrp**. You can specify an InfoPrint XT directory for a specific group of resources. *resgrp* is a name you choose.
- **C:\OtherDirectory**. You can also specify a separate, existing directory on the Windows system. Include the drive that contains the directory.

Metrics directory

For each type of Xerox resource that you load, InfoPrint XT creates a related metrics file. This file contains information about the resource that InfoPrint XT uses to reduce processing time when it converts a Xerox job that uses the resource. The directory in which InfoPrint XT writes the metrics file depends on the load options. The metrics directory is one of these:

- %PDXTWORKDIR%\resources\common\metrics
- %PDXTWORKDIR%\resources\resgrp\metrics
- C:\OtherDirectory\metrics

Xerox resource directory

For all resources that successfully load, InfoPrint XT copies the original Xerox resource to the system. The directory in which InfoPrint XT writes the Xerox resources depends on the load options. The Xerox resource directory is one of these:

- %PDXTWORKDIR%\resources\common\xrxres
- %PDXTWORKDIR%\resources\resgrp\xrxres
- C:\OtherDirectory\xrxres

Note: Use these directory definitions when InfoPrint XT procedures direct you to do actions that involve the AFP resource directory, the metrics directory, or the Xerox resource directory.

Types of Xerox resources that you can load

Table 8 contains information about the Xerox resources that you copy to the Windows system, and the files that InfoPrint XT creates when you load the resources:

- Column one lists the types of Xerox resources and the valid file extension for each type. The actual names of Xerox resources are up to 6 characters. Xerox resource names can also contain numbers and dollar signs (\$). For example, **p0612c.fnt** is a common Xerox font.
- Column two specifies the prefixes for the AFP files that InfoPrint XT generates from printable Xerox resources. InfoPrint XT generates a single AFP file for each form, image, and logo. It generates three AFP files for each single-byte font; a coded font file, a character set file, and a code page file. If the entry in this column is empty, the associated Xerox resource is a non-printable resource.
- Column three specifies the extensions of the metrics files that InfoPrint XT generates from the Xerox resources.

Table 8. Xerox resource extensions, AFP prefixes, and metrics extensions

Xerox resource type and extension	Resulting InfoPrint XT AFP prefixes	Resulting InfoPrint XT metrics extensions
Cluster Library - .lib		.alb
Command - .cmd		.acm
Copy Modification Entry - .cme		.ace
Data - .dat		.adt
Font - .fnt	C0, T1, X0 ¹	.afn (single-byte) .adm (double-byte)
Form - .frm	O1	.afr
Forms Source Library - .fsl		.afs
Image AFP files - .img	SI	.aim
Ink Catalog - .ict		.aic
Ink Descriptor - .idr		.aid
Ink Source Library - .isl		.ais
Job Descriptor Library - .jdl		.ajd

Table 8. Xerox resource extensions, AFP prefixes, and metrics extensions (continued)

Xerox resource type and extension	Resulting InfoPrint XT AFP prefixes	Resulting InfoPrint XT metrics extensions
Job Source Library - .jsl		.ajs
Logo - .lgo	SL	.alg
Miscellaneous - .msc		.ams
Page Descriptor Entry - .pde		.apd
Patch - .pch		.apc
Stockset - .stk		.ast
Routing Text - .tst		.ats
Temporary - .tmp		.atp

¹ Not generated for double-byte character set fonts.

Loading Xerox double-byte character set (DBCS) fonts

The InfoPrint XT process that loads Xerox DBCS fonts is different from the process that it uses for single-byte fonts. InfoPrint XT does not generate the AFP character sets, coded fonts, and code pages for the Xerox DBCS fonts. You must provide a set of double-byte AFP fonts that you use in place of the Xerox fonts. These fonts must be AFP outline fonts that fully conform to the MO:DCA FOCA standards; see *Data Stream and Object Architectures: Font Object Content Architecture (FOCA) Reference*, S544-3285. You copy the AFP outline fonts to the appropriate AFP resource directory before you actually load the Xerox DBCS fonts.

During the load process, InfoPrint XT maps each Xerox DBCS font to an AFP coded font. It uses an AFP coded font name of **XZxxxxxx**. *xxxxxx* is the name of the corresponding Xerox DBCS font. For example, if you load the **HST25P.FNT** Xerox DBCS font, InfoPrint XT maps it to the **XZHST25P** AFP coded font. To use a different AFP coded font name, you must create a manual correlation table that maps the Xerox DBCS font name to the AFP coded font that you want to use. See “Creating manual correlation entries for double-byte Xerox fonts” on page 53.

To load Xerox DBCS fonts:

1. Generate a resource group by loading all JDL, CME, PDE, STK, and TST resources first. You can use the common group or you can specify a group name that you choose.
2. Copy the AFP DBCS outline font files to the AFP resource directory for the resource group.
3. If the AFP coded font name does not match the **XZxxxxxx** naming convention, you must create a manual correlation table.
4. Use the **pdxloadres** command to load the Xerox DBCS fonts. See “Using the pdxloadres command to load Xerox resources” on page 42.

Loading order for Xerox resources by resource type

You can load a single Xerox resource or you can load groups of Xerox resources. For groups, you can load resources that are all the same type, such as all fonts, or resources of different types. When you mix the types of resources, InfoPrint XT loads them in a specific order. This is because some resources, such as forms, can require you to load other resources first. Xerox form resources often require fonts. The information returned from the load process lists the order.

Information files generated by InfoPrint XT during resource tasks

InfoPrint XT creates files in which it stores information about resource tasks, such as loading and deleting resources. The next topics describe the various files using the common resource group and its AFP resource directory. If you load the resources in a different directory, substitute that AFP resource directory name:

%PDXTWORKDIR%\resources\common\pdxloadres.log

This file contains information about each time the **pdxloadres** command runs. InfoPrint XT writes new entries at the end of the file. The information for each invocation of the **pdxloadres** command includes:

- The time when the command started.
- The options and values that were specified with the **pdxloadres** command.
- The resources that InfoPrint XT processed or tried to process. The entry for each resource includes the return code from resource processing. If a failure occurred, the entry includes the name of the processing step that failed. The entry also lists the path to the Xerox resource.
- The time when the command ended.
- The return code from the **pdxloadres** command. If any of the resource entries has a non-zero return code, the command returns a non-zero return code.

These are examples of **pdxloadres.log** entries:

```
2007-11-11 12:16:13 MST pdxloadres -r -n *fnt
  tab.sft          0
  tab.aft          0
  ano11.img        16 XRHDR   /dev/fs/C/resources/ano11.img
  po812p.fnt       0          /dev/fs/C/resources/po812p.fnt
  rk26bp.fnt       16 FIXFNT  /dev/fs/C/resources/rk26bp.fnt
  ra128p.fnt       0          /dev/fs/C/resources/ra128p.fnt
2007-11-11 12:16:17 MST pdxloadres (16)

2007-11-11 15:23:27 MST /dev/fs/C/Program Files/IBM/Infoprint XT/bin/pdxloadres -f delete -np0612c.fnt -g payroll
  p0612c.fnt       0 DELETED
  tab.sft          0
  tab.aft          0
2007-11-11 15:23:28 MST pdxloadres (0)
```

Note: InfoPrint XT only records information in the log if the command tried to process a resource. For example, if you use the wrong command option or value, **pdxloadres** stops immediately. It does not try to process any resources.

%PDXTWORKDIR%\resources\common\pdxloadres.lst

This file contains the messages that InfoPrint XT wrote to standard error (STDERR) for the last time the **pdxloadres** command ran. You typically direct standard error to the Windows display. InfoPrint XT overwrites the information in this file each time the command runs.

%PDXTWORKDIR%\resources\common\pdxloadres.rty

InfoPrint XT creates a retry file if it did not load all the resources that the **pdxloadres** command specified the last time the command ran. It writes the path and file name for each resource that failed on a separate line in the **pdxloadres.rty** file. You can correct the problems that InfoPrint XT reported and then try to load the resource or resources again. When you enter the **pdxloadres** command, include the **-l** option with the command

but do not enter a value for that option. This causes InfoPrint XT to use the information in the **pdxloadres.rty** file to determine the resources to load.

Note: InfoPrint XT overwrites the information in the **pdxloadres.rty** file with each time the **pdxloadres** command runs.

Error information for resources that fail to load

InfoPrint XT also stores information about the individual resources that fail in the working directory that it uses during the resource load process. Whether you load resources in the common resource group, a specific resource directory, or an existing directory determines what InfoPrint XT uses as the working directory. The working directory for the resource load process is one of these:

- **%PDXTWORKDIR%\resources\common\pdxloadres**
- **%PDXTWORKDIR%\resources\resgrp\pdxloadres**
- **C:\OtherDirectory\pdxloadres**

This list describes the various files in the working directory:

resname.ext.lst

Contains information that InfoPrint XT generates while it converts the resource. *resname.ext* is the actual name of the resource. If the resource load process failed, InfoPrint XT includes error information in this file.

xxx_corr.lst

Contains information that InfoPrint XT generates while it builds the correlation table entry for one or more resources of a specific type. *xxx* specifies the type of Xerox resource.

xxx_metr.lst

Contains information that InfoPrint XT generates while it creates the metrics files for one or more resources of a specific type. *xxx* specifies the type of Xerox resource. The file includes error messages about any resource for which InfoPrint XT did not generate a metrics file.

xxx_metr.xml

InfoPrint XT generates this file when failures occur while it tries to create metrics files for a specific type of resource. *xxx* is the extension of the resource type, such as **cme** or **fnt**. The file lists those resources that InfoPrint XT processed successfully.

resname.axx.failed

Contains output that InfoPrint XT generates when a failure occurs while it tries to create a metrics file. *resname* is the actual name of the resource. *axx* is the extension of the metrics file for the resource. For example, **ajd** is the extension of a metrics file for a Xerox JDL resource. You can ignore the information in this file.

Notes:

1. InfoPrint XT deletes existing files in the **pdxloadres** subdirectory and writes new information each time that you run the **pdxloadres** command. It does not save any of the information for the previous time the command ran.
2. InfoPrint XT provides a method to display the information from these files so that you do not have to go to the working directory to access the files. See the description of the **-e** command option for the **pdxloadres** command in "Using the **pdxloadres** command to load Xerox resources" on page 42.

Using the `pdxloadres` command to load Xerox resources

You use the InfoPrint XT `pdxloadres` command to load all the Xerox resources on the Windows system and to create the AFP versions of printable resources. The command provides options that you can use to control how and where InfoPrint XT creates the converted resource files. You can also use the `pdxloadres` command to delete resources.

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The syntax of the `pdxloadres` command is:

```
pdxloadres [-f load ] [-a ioca_rt | no_ioca_rt] [-b spcprt | spcrmi]
[-c xerox | grayscale | [lp]:[mp]:[hp]] [-e listings | nolistings]
[[-g common | resgrp] | -o outputdirectory]
[-i | -r] [-l listfile | -n pattern] [ -m letter | medium]
[-M none | all | xerox | xerox+font1:font2:fontn |
xerox-font1:font2:fontn | font1:font2:fontn]
[-p 300_1 | 300_2] [-s none | word | char]
```

```
pdxloadres -f delete -l listfile | -n pattern [-g resgrp | -o outputdirectory]
[-e listings | nolistings]
```

Note: These descriptions use the default values that InfoPrint XT supplies for the `pdxloadres` options. You can change the default values using the `PDXTLOADRES_ARGS` environment variable. See “Controlling the default arguments when you load resources (PDXTLOADRES_ARGS)” on page 23.

[-a ioca_rt | no_ioca_rt]

Specifies whether InfoPrint XT uses the IOCA replicate-and-trim function for the shading patterns in data streams and forms. Valid values are:

ioca_rt

InfoPrint XT uses the IOCA replicate-and-trim function. This is the default.

no_ioca_rt

InfoPrint XT does not use the IOCA replicate-and-trim function.

Application programs that issue the `pdxloadres` command can use these universal values instead of the language-specific keywords:

- **API:IO CART** is the same as **ioca_rt**.
- **API:NOIO CART** is the same as **no_ioca_rt**.

Notes:

1. If one or more of your printers do not support the IOCA replicate-and-trim function, specify **no_ioca_rt**.
2. You can further refine the shading patterns with the **-p** option. See page 49.

[-b spcprt | spcrmi]

Controls how InfoPrint XT interprets spacing characters in a Xerox font during the load process. Valid values are:

spcprt InfoPrint XT interprets spacing characters in the font as

Presentation Text Object Content Architecture (PTOCA) text-string characters. This is the default.

sprmi

InfoPrint XT interprets spacing characters in the font as Relative Move Inline (RMI) structured fields.

Application programs that issue the **pdxtloadres** command can use these universal values instead of the language-specific keywords:

- **API:SPCPRT** is the same as **sprprt**.
- **API:SPCRMI** is the same as **sprmi**.

Notes:

1. Restrictions apply when you use the **-b** option. See page 6.
2. If you use this option to load specific fonts, reload any forms that use those fonts.
3. You can also change how InfoPrint XT interprets spacing characters in Xerox fonts when FILE DJDEs in a job specify the fonts. See the **xsprmi** conversion parameter on page 101.

[-c xerox | grayscale | [*lp*]:[*mp*]:[*hp*]]

Controls how InfoPrint XT interprets Xerox shading when it loads FRMs. Valid values are:

xerox InfoPrint XT emulates Xerox shading and produces raster dot patterns in the AFP that it generates. This is the default.

grayscale

InfoPrint XT uses Logical Page and Object Area Coloring to substitute grayscale for the standard shading characters in FRMs. It uses default percentages of grayscale coverage for the levels of Xerox shading:

LIGHT

Five percent (5%) coverage.

MEDIUM

Ten percent (10%) coverage.

HEAVY

Fifteen percent (15%) coverage.

[*lp*]:[*mp*]:[*hp*]

InfoPrint XT substitutes grayscale for the Xerox shading and uses coverage percentages you specify. For each position in the value, you can specify an integer from 0 through 100:

lp The coverage percentage that InfoPrint XT uses for LIGHT shading.

mp The coverage percentage that InfoPrint XT uses for MEDIUM shading.

hp The coverage percentage that InfoPrint XT uses for HEAVY shading.

Do not include the brackets in the value; the brackets indicate each position in the value is optional. Include the colons (:) between the positions of the value. If you omit

any position, InfoPrint XT uses the default percentage for LIGHT, MEDIUM, or HEAVY. These are examples of values you can specify:

-c :8:16

InfoPrint XT uses 5% coverage for LIGHT shading, 8% for MEDIUM, and 16% for HEAVY.

-c 3

InfoPrint XT uses 3% coverage for LIGHT shading, 10% for MEDIUM, and 15% for HEAVY.

-c :11

InfoPrint XT uses 5% coverage for LIGHT shading, 11% for MEDIUM, and 15% for HEAVY.

-c ::14

InfoPrint XT uses 5% coverage for LIGHT shading, 10% for MEDIUM, and 14% for HEAVY.

-c 4:9:12

InfoPrint XT uses 4% coverage for LIGHT shading, 9% for MEDIUM, and 12% for HEAVY.

Application programs that issue the **pdxloadres** command can use these universal values instead of the language-specific keywords:

- **API:SHDXRX** is the same as **xerox**.
- **API:SHDGSC** is the same as **grayscale**.
- **API:SHDGSU=[lp]:[mp]:[hp]** is the same as **-c [lp]:[mp]:[hp]**.

Note: Restrictions apply when you use the **-c** option. See page 4.

[-e listings | nolistings]

Controls whether InfoPrint XT writes the listings from the individual steps of the resource-load or resource-delete process to STDERR. These listings can contain error information. Valid values are:

listings

InfoPrint XT writes the listings to STDERR.

nolistings

InfoPrint XT does not write the listings to STDERR. This is the default.

Application programs that issue the **pdxloadres** command can use these universal values instead of the language-specific keywords:

- **API:LISTINGS** is the same as **listings**.
- **API:NOLISTINGS** is the same as **nolistings**.

[-f load | delete]

Specifies whether InfoPrint XT loads or deletes Xerox resources. The default is that InfoPrint XT loads resources. Valid values are:

load

InfoPrint XT loads Xerox resources. This is the default.

delete

InfoPrint XT deletes Xerox resources. InfoPrint XT deletes the information that it generated during the load process and deletes the original Xerox resources.

Application programs that issue the **pdxloadres** command can use these universal values instead of the language-specific keywords:

- **API:LOAD** is the same as **load**.
- **API:DELETE** is the same as **delete**.

Note: If the AFP resource directory contains DBCS fonts, InfoPrint XT does not delete them when it deletes the Xerox DBCS font resources.

[-g common | *resgrp*]

Specifies a resource group name that InfoPrint XT uses to build subdirectories in the %PDXTWORKDIR%\resources directory. InfoPrint XT uses these subdirectories to store the converted AFP resources, the metrics files, and copies of the original Xerox resource files. Valid values are:

common

InfoPrint XT builds subdirectories in %PDXTWORKDIR%\resources\common. This is the default.

resgrp InfoPrint XT builds subdirectories in %PDXTWORKDIR%\resources\resgrp. *resgrp* is a name that you choose. The name must be alphanumeric and it cannot contain any special characters.

If you specify the **-g** option, you cannot specify the **-o** option. If you do not specify either **-g** or **-o**, the **pdxloadres** command uses the common resource group, which is %PDXTWORKDIR%\resources\common.

[-i]

For a specific Xerox resource that is already loaded, InfoPrint XT reconverts the resource. If the Xerox resource is a printable resource, InfoPrint XT also rebuilds the AFP file or files. InfoPrint XT uses the original version of the Xerox resource that it copied to the Xerox resource directory when you originally converted the resource. You might find this option useful for reconverting a resource to use a different medium or a different shading pattern.

If you specify the **-i** option, you cannot specify the **-r** option.

Note: If you specify a Xerox resource that is not currently loaded, InfoPrint XT issues an error message when you specify the **-i** option.

[-l *listfile*]

Specifies the resources that you want InfoPrint XT to load or delete. *listfile* is either a file on the Windows system that contains the resource names or it is a stream. Each resource that the file lists must be on a separate line. If you specify the list of resources in a stream, use this format:

-l - If you use a dash as the value for the **-l** option, InfoPrint XT reads the resource names from standard input (STDIN).

If you specify the **-l** option, you cannot specify the **-n** option. If you do not specify either **-n** or **-l**, the **pdxloadres** command updates correlation tables, as needed.

Notes:

1. You cannot use wildcard characters in the entries in the list file.

2. If you are loading resources, you can specify Xerox resources with names that follow IBM Infoprint XT Extender for z/OS naming conventions. See Table 9 on page 48.
3. If you are loading resources, you can specify the **-l** option without a value. InfoPrint XT tries to load resources using the retry file. See page 40.
4. If you use both the **-l** option and the **-i** option, do not include path information with the resource names. Specify only the resource names in lowercase characters.
5. If you are deleting resources, you must specify either the **-l** option or the **-n** option. The resource names that you specify for deletion must be lowercase. You cannot specify resource names that follow IBM Infoprint XT Extender for z/OS naming conventions.

-m letter | *medium*]

Specifies the medium (paper) size that InfoPrint XT uses when it loads Xerox forms. The **letter** paper size is the default that InfoPrint XT uses when it converts form resources.

Valid paper sizes are:

Values	Corresponding values for application programs
-m folio	API:I
-m ledger	API:Z
-m legal	API:B
-m letter	API:A
-m A3	API:Y
-m A4	API:C
-m A4LT	API:J
-m B4	API:D

Notes:

1. InfoPrint XT only uses the paper size that you specify if the Xerox resource does not explicitly define the paper size. Any value in the resource overrides the value of the **-m** option.
2. **A4LT** is a custom paper size that is 8.5 inches by 11.69 inches, or 216 mm by 297 mm.

-M none | **all** | **xerox** | **xerox+font1:font2:fontn** | **xerox-font1:font2:fontn** | **font1:font2:fontn**]

Specifies whether InfoPrint XT generates AFP magnetic ink character recognition (MICR) fonts when it loads Xerox fonts. You can specify one of these values:

- none** InfoPrint XT does not generate AFP MICR fonts for any of the Xerox fonts that it loads. This is the default.
- all** InfoPrint XT generates AFP MICR fonts for all the Xerox fonts that it loads.
- xerox** InfoPrint XT generates AFP MICR fonts for all Xerox fonts whose names begin with these standard prefixes for MICR font names:
 - **E13B**
 - **E14B**

- **CMC7**

For example, InfoPrint XT generates AFP MICR fonts for these Xerox fonts: **E13BPX.FNT**, **E14BL.FNT**, **CMC7J.FNT**.

xerox+font1:font2:fontn

InfoPrint XT generates AFP MICR fonts for all Xerox fonts whose names begin with **E13B**, **E14B**, or **CMC7**. In addition, it generates AFP MICR fonts for up to 33 fonts that you specify by name. Separate the font names with colons (:). The fonts you specify can be any Xerox fonts.

xerox-font1:font2:fontn

InfoPrint XT generates AFP MICR fonts for all Xerox fonts whose names begin with **E13B**, **E14B**, or **CMC7**, except for the fonts you specify after the minus sign (-). You can specify up to 33 Xerox fonts that begin with the standard prefixes for MICR font names. Separate the font names with colons.

font1:font2:fontn

InfoPrint XT generates AFP MICR fonts for the Xerox fonts you specify. You can specify up to 33 fonts. Separate the font names with colons (:). The fonts you specify can be any Xerox fonts. InfoPrint XT does not generate AFP MICR fonts for any Xerox fonts that begin with the standard prefixes for MICR font names unless you specify them in the list of fonts.

Application programs that issue the **pdxloadres** command can use these universal values instead of the language-specific keywords:

Values	Corresponding values for application programs
-M none	API:MCRNON
-M all	API:MCRALL
-M xerox	API:MCRXRX
-M xerox+font1:font2:fontn	API:MCRXRP=font1:font2:fontn
-M xerox-font1:font2:fontn	API:MCRXRM=font1:font2:fontn
-M font1:font2:fontn	API:MCRUSR=font1:font2:fontn

[-n pattern]

Specifies the Xerox resources to load or delete. You can use pattern-matching strings to specify groups of resources. You can specify more than one pair of **-n** options and patterns, up to a maximum of 50:

- To load all Xerox font files in the directory **My Fonts**:

```
pdxloadres -n "C:\My Fonts\*.fnt"
```
- To load all resources in the current directory that begin with the letter **a**:

```
pdxloadres -n a*
```
- To delete a specific JDL file in a specific group:

```
pdxloadres -f delete -g payroll -n dplonl.jdl
```

If you specify the **-n** option, you cannot specify the **-l** option. If you do not specify either **-n** or **-l**, the **pdxloadres** command updates correlation tables, as needed.

Notes:

1. If you use both the **-n** option and the **-i** option, do not include path information in the value for the **-n** option.
2. When you delete resources, you must specify resource names in lowercase.
3. When you load resources, the **pdxloadres** command also recognizes IBM Infoprint XT Extender for z/OS naming conventions for Xerox resource files. You can transfer Xerox resources from z/OS to the Windows system using a method such as File Transfer Protocol (FTP). The Xerox resource data sets have specific naming conventions. See Table 9.

Table 9. IBM Infoprint XT Extender for z/OS naming conventions for Xerox resource files

Xerox resource extensions	Corresponding z/OS name format
.CLS ¹	B#
.CME	C\$
.CMD	D\$
.DAT	A\$
.FNT	F\$
.FRM	M\$
.FSL	G\$
.ICT	U\$
.IMG	I\$
.IDR	V\$
.ISL	W\$
.JDL	J\$
.JSL	K\$
.LGO	L\$
.LIB	B\$
.MSC	S\$
.PCH	E\$
.PDE	P\$
.STK	Y\$
.TMP	E\$
.TST	T\$

¹ This is the source code, in an InfoPrint XT format, for a reformatted Xerox cluster database LIB file.

[-o OtherDirectory]

Specifies an existing directory in which you want InfoPrint XT to store AFP versions of Xerox printable resources. Use this option to store AFP resources in a directory other than **%PDXTWORKDIR%\resources\common** or **%PDXTWORKDIR%\resources\resgrp**. InfoPrint XT also creates a **metrics** subdirectory, an **xrxres** subdirectory, and a **pdxloadres** subdirectory under the directory that you specify.

If you specify the **-o** option, you cannot specify the **-g** option. If you do not specify either **-o** or **-g**, the **pdxloadres** command uses the common resource group.

Note: If the directory that you specify does not exist, InfoPrint XT issues an error message.

[-p 300_1 | 300_2]

Specifies the type of shading patterns that InfoPrint XT uses when it converts Xerox forms. Valid values are:

300_1 Specifies the shading patterns used by Xerox 9700, 4x50, and 4x90 printers. This is the default.

300_2 Specifies the patterns used by Xerox 4x35 printers.

[-r]

For a specific Xerox resource that is already loaded, InfoPrint XT loads a new version of the Xerox resource. If the Xerox resource is a printable resource, InfoPrint XT also rebuilds the AFP file or files. If the load process is successful, InfoPrint XT replaces the original copy of the Xerox resource in the **xxres** subdirectory.

If you specify the **-r** option, you cannot specify the **-i** option.

[-s none | word | char]

Specifies the type of spacing fidelity adjustments that InfoPrint XT makes when it converts Xerox forms. Valid values are:

none InfoPrint XT does not make any spacing adjustments during conversion. This is the default and is adequate for most Xerox forms. However, if you see a noticeable difference between the Xerox printed form and the corresponding AFP overlay printed on an InfoPrint Solutions Company printer, you can make adjustments with the other values for this option.

word InfoPrint XT makes spacing adjustments at word boundaries.

char InfoPrint XT makes spacing adjustments at both word and character boundaries.

Application programs that use the **pdxloadres** command can use these universal values instead of the language-specific keywords:

- **API:N** is the same as **none**.
- **API:W** is the same as **word**.
- **API:C** is the same as **char**.

Note: Use of word or character adjustments affects performance and results in larger AFP files.

Streams used by the **pdxloadres** command

The **pdxloadres** command uses some file descriptors while it processes Xerox resources and ignores others:

fd0 (STDIN) The command does not use this stream.

fd1 (STDOUT)

The command does not use this stream.

fd2 (STDERR)

The command writes messages to this stream.

Return codes from the `pdxloadres` command

Return codes from the `pdxloadres` command mean:

0	The command successfully loaded or deleted all the specified resources.
EINVAL	An error exists with one of the command options.
E2BIG	The command contains too many command options.
ENOATTR	You specified a command option without a value, or you did not specify a required command option.
ENOENT	The command did not locate the resources to load or delete. The file or pattern that the <code>-l</code> or <code>-n</code> command option specified did not contain or match any valid file names.
ENOMEM	Not enough memory is available for the command.
EEXIST	A resource was already loaded; you did not specify the <code>-r</code> option with the command.
ECONNABORTED	The command did not load or delete one or more resources because of a non-zero return code from an associated subcommand.
ECONNRESET	The command did not load or delete one or more resources, but associated subcommands had return codes of zero.
other	Any other return codes that are not in this list are return codes from C functions. See "Return code numbers" on page 113 for explanations.

+ - - - - - End of Programming Interface information - - - - - +

Examples: `pdxloadres` command

These examples show how you can use the `pdxloadres` command to load Xerox resources:

- To load all the resources specified in a list file named `resource.list` and to use the common resource library:
`pdxloadres -l %PDXTWORKDIR%\resources\resource.list`
- To load all the resources specified in a list file in the current directory:
`pdxloadres -l resource.list`
- To load all fonts in the current directory in the `payroll` resource group:
`pdxloadres -g payroll -n *fnt`

Scanning a job for required resources with the `pdxtx2afp` command

When you initially set up InfoPrint XT, you loaded all the resources that were on the Xerox printer or printers. If you add applications that generate new jobs and that use new resources, you can scan the jobs to determine the resources they require. This is an iterative process because some Xerox resources require other Xerox resources. For example, a Xerox form might require one or more images and fonts.

You can use the **pdxtx2afp** command to create a preliminary list of the resources that a job requires. Before you scan the job, you must load the starting JDL for the job. When you scan the job, use the **xafprc=12** and **xconvert=no** conversion parameters. For the syntax of the **pdxtx2afp** command and examples of its use, see "Using the **pdxtx2afp** command to process Xerox jobs" on page 61.

Printing samples of overlays and page segments

You can print copies of the AFP overlays that InfoPrint XT generates from Xerox forms, and you can print the AFP page segments that it generates from Xerox images and logos. For installations that use InfoPrint Manager with InfoPrint XT, you can use the InfoPrint Manager **pdpr** command to submit the print request. Use the **resource-context** document attribute to specify the location of the AFP resources:

- To print a copy of the AFP overlay named **O1LBB007**, which is in the common resource library:

```
pdpr -d ldest -x resource-context=%PDXTWORKDIR%\resources\common %PDXTWORKDIR%\resources\common\O1LBB007
```

ldest is the name of the InfoPrint Manager logical destination.

Note: Make sure that you include the **resource-context** attribute so that InfoPrint Manager can locate any fonts that the overlay might use.

- To print a copy of the AFP page segment named **SIBROM1**, which is in the resource library for the resource group **printrun**:

```
pdpr -d ldest %PDXTWORKDIR%\resources\printrun\SIBROM1
```

You can also use relative paths when you print copies of overlays and page segments. For example, if **%PDXTWORKDIR%\resources\printrun** is the current directory, you can use this command:

```
pdpr -d ldest .\SIBROM1
```

Correlating font, image, or logo resources manually

When you load Xerox fonts, images, and logos, InfoPrint XT automatically generates the corresponding AFP resources. InfoPrint XT also creates correlations that map the Xerox resources to their AFP counterparts. For most installations, the correlations that InfoPrint XT makes satisfy all printing requirements. However, advanced users might want to change the correlations for purposes like:

- Substituting a new font or image for an old one, to change the appearance of the printed output. This eliminates any changes to the application that generates the jobs.
- Substituting DBCS AFP outline fonts for DBCS Xerox fonts.
- Substituting AFP page segments for Xerox signature fonts. The size of some signature fonts can prevent InfoPrint XT from creating a corresponding AFP font.
- Adjusting the horizontal or vertical placement of a signature or a logo.

To make correlation updates, create correlation tables in the metrics directory of the resource group. Separate tables exist for fonts, images, and logos. Each table has its own format. Each line in a correlation table is a separate entry consisting of keywords. All the text for the complete entry is in uppercase characters. No column restrictions exist. This means that the second keyword of one entry does

not have to start at the same column location as the second keyword of another entry. You might want to use a specific columnar format, for readability, as you make entries.

After you create the manual correlation tables, use the **pdxloadres** command to apply the updates.

Note: If Xerox spacing characters in fonts cause code page conflicts after you manually correlate a Xerox font to an AFP font, you can change how InfoPrint XT interprets the spacing characters. See the **-b** command option in “Using the pdxloadres command to load Xerox resources” on page 42.

Creating manual correlation entries for single-byte Xerox fonts

To make manual correlations for single-byte fonts, create a **tab.mft** file in the appropriate metrics directory. In the table, you can correlate a Xerox font to an AFP coded font, to an AFP character set and code page pair, or to an AFP page segment. The syntax for single-byte character set (SBCS) font entries in the correlation table is:

```
F XName A2ETable CFont | CSet Cpage | PSeg {Char | XChar} [X=nn] [Y=nn]
```

F The entry is an SBCS font.

XName

The name of the Xerox font in uppercase, without the **.FNT** extension. **P0612C** is an example.

A2ETable

The name of the ASCII-to-EBCDIC translation table that InfoPrint XT uses. Unless instructed otherwise by a technical support representative, this value is **X2AFP**.

CFont The name of the AFP coded font to use in place of the Xerox font. **X0KY96** is an example.

CSet CName

The name of an AFP character set and code page pair to use in place of the Xerox font. **C0H01030 T1H01030** is an example.

PSeg {Char | XChar} [X=nn] [Y=nn]

PSeg is the name of an AFP page segment to use in place of one character in the Xerox font. You can use these methods to identify the character:

- *Char* specifies the literal ASCII character in the font.
- *XChar* specifies the code point of the character in hexadecimal notation. If you have access to a Xerox printer, you can sample the font to determine the code point.

These are examples of both methods:

```
F ABC X2AFP S1ABCA A
```

```
F ABC X2AFP S1ABC41 41
```

As an option, you can also adjust the positioning of the character that the page segment represents. The adjustments that you make are relative to the page segment when you look at it in the portrait orientation. You can use **X=nn** to make a horizontal adjustment. *nn* is a value in pels. A positive value moves the page segment to the right. A negative value moves it to the left. Use **Y=nn** to make a vertical adjustment. A positive value moves the page segment down on the page. A negative value moves it up.

Figure 3 shows the various types of entries that you can make in a manual font correlation table for single-byte Xerox fonts.

```
F CRC12P X2AFP X0P0612C
F RK141P X2AFP COUN411E T1UN411E
F CSFL30 X2AFP S1L3021 41
F CSFP01 X2AFP S1P0121 A
F CSFP02 X2AFP S1P0122 21 Y=-7
F CSFP03 X2AFP S1P0123 F X=3
F CSFP04 X2AFP S1P0124 Y X=-3 Y=4
```

Figure 3. Sample correlation entries for single-byte Xerox fonts

Creating manual correlation entries for double-byte Xerox fonts

Correlation table entries for DBCS Xerox fonts are similar to entries for SBCS fonts. However, you can only correlate a DBCS font to an AFP coded font. Add the DBCS entry to the same **tab.mft** file that has any SBCS entries you require. The syntax for a DBCS font entry is:

D XName A2ETable CFont

D The entry is a double-byte font.

XName

The name of the Xerox font in uppercase, without the **.FNT** extension.

A2ETable

The name of the ASCII-to-EBCDIC translation table that InfoPrint XT uses. Unless instructed otherwise by a technical support representative, this value is **X2AFP**.

CFont The name of the AFP coded font to use in place of the Xerox font.

This is an example of an entry for a DBCS font in the **tab.mft** table:

```
D CX24L X2AFP XZABCDEF
```

If you require AFP DBCS outline fonts for use with double-byte Xerox fonts, contact your marketing representative for more information. You can also use AFP DBCS outline fonts from other sources. Those fonts must fully conform to the MO:DCA FOCA standards; see *Data Stream and Object Architectures: Font Object Content Architecture (FOCA) Reference*, S544-3285.

Creating manual correlation entries for images

To create a manual correlation table for image resources, create a **tab.mit** file in the appropriate metrics directory. You can correlate a Xerox image to an AFP page segment. You can specify horizontal and vertical spacing values if you require them. The syntax for an image entry is:

I XName Pseg [X=nn] [Y=nn]

I The entry is an image.

XName

The name of the Xerox image in uppercase, without the **.IMG** extension.

Pseg [X=nn] [Y=nn]

The AFP page segment to use in place of the Xerox image. As an option, you can also adjust the position of the page segment on the page. The adjustments that you make are relative to the page segment when you look

at it in the portrait orientation. You can use $X=nn$ to make a horizontal adjustment. nn is a value in pels. A positive value moves the page segment to the right. A negative value moves it to the left. Use $Y=nn$ to make a vertical adjustment. A positive value moves the page segment down on the page. A negative value moves it up.

Figure 4 shows the various types of entries that you can make in a manual correlation table for Xerox images.

```
I GOALIE S1LANCHE
I KOALA1 S1SKYET Y=4
I X14BAR S11BI13B X=-2
I AIR767 S1PIPERC X=3 Y=-2
```

Figure 4. Sample correlation entries for Xerox images

Creating manual correlation entries for logos

To create a manual correlation table for logo resources, create a **tab.mlt** file in the appropriate metrics directory. You can correlate a Xerox logo to an AFP page segment. You can specify horizontal and vertical spacing adjustments if you require them. The syntax for a logo entry is:

```
L XName PSeg [X=nn] [Y=nn]
```

L The entry is a logo.

XName

The name of the Xerox logo in uppercase, without the **.LGO** extension.

PSeg [X=nn] [Y=nn]

The AFP page segment to use in place of the Xerox logo. As an option, you can also adjust the position of the page segment on the page. The adjustments that you make are relative to the page segment when you look at it in the portrait orientation. You can use $X=nn$ to make a horizontal adjustment. nn is a value in pels. A positive value moves the page segment to the right. A negative value moves it to the left. Use $Y=nn$ to make a vertical adjustment. A positive value moves the page segment down on the page. A negative value moves it up.

Figure 5 shows the various types of entries that you can make in a manual correlation table for Xerox logos.

```
L PANDT S1SUB01
L L1980 S1BLUE Y=4
L L1990 S1GREEN X=-2
L L2003 S1DKRED X=3 Y=-2
```

Figure 5. Sample correlation entries for Xerox logos

Processing a manual correlation table

To process a manual resource correlation table and activate correlation entries:

1. Copy the font and page segment files to the AFP resource directory. Copies of the AFP fonts and AFP page segments that you specify in a manual resource correlation table must be in the appropriate InfoPrint XT AFP resource directory. For example, you specified an AFP resource in the manual correlation

table that is in the **C:\Program Files\IBM\Infoprint Manager\reslib** directory. If you loaded the Xerox resources in the common resource group, the copy command is similar to this:

```
copy C:\Program Files\IBM\Infoprint Manager\reslib\X0423002 %PDXTWORKDIR%\resources\common
```

Note: You can also use Windows Explorer to copy the file.

2. If you made modifications for the common resources (located in **%PDXTWORKDIR%\resources\common**), process the manual correlation table by entering the **pdxtloadres** command without any options:

```
pdxtloadres
```

If you are working with a resource group or a separate directory, use the **-g** or the **-o** option with the **pdxtloadres** command. For example:

```
pdxtloadres -g statements
```

InfoPrint XT displays information that is similar to this:

```
5016-600 Resource load process started for type "xxx".
5016-614 Resource correlation process started.
5016-615 Resource correlation process is complete.
5016-601 Resource load process is complete for type "xxx".
```

"xxx" is either **fnt**, **img**, or **lgo**.

Deblocking and reblocking CMDs, FSLs, ISLs, and JSLs

To see the contents of certain types of Xerox resource files, you must first change their format from blocked to deblocked. After you have completed the tasks for the deblocked resources, you reblock them. InfoPrint XT provides two commands, **pdxtblkres** and **pdxtdblkres**, that you can use to deblock and block resources.

Using the **pdxtdblkres** command to deblock resources

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You use the **pdxtdblkres** command to deblock one or more Xerox resource files. The syntax for the command is:

```
pdxtdblkres [-p yes | no ] [file ...]
```

[-p yes | no]

Specifies whether the **pdxtdblkres** command passes through data from the deblocking process if the resource is already deblocked, or if the command cannot deblock the data. Valid values are:

yes If the resource is already deblocked or it cannot be deblocked, the command passes the resource data through as it is. This is the default.

no If the resource is already deblocked or it cannot be deblocked, the command stops processing.

Application programs that issue the **pdxtdblkres** command can use these universal values instead of the language-specific keywords:

- **API:YES** is the same as **yes**.
- **API:NO** is the same as **no**.

[file ...] Specifies one or more Xerox resource files that you want the command to deblock. When the **pdxtdblkres** command deblocks a resource file, it

replaces the contents of the existing file with the deblocked output. If you do not specify a file name, the command reads from standard input and writes to standard output.

You can specify more than one file. Separate the file names with spaces.

Streams used by the `pdxtblkres` command

The `pdxtblkres` command uses file descriptors while it processes Xerox resources:

- fd0 (STDIN)** If you do not specify any resource file names with the command, the command reads the blocked resource from standard input.
- fd1 (STDOUT)** If you do not specify any resource files names with the command, the command writes the deblocked resource to standard output.
- fd2 (STDERR)** The command writes messages from the deblocking process to standard error.

Return codes from the `pdxtblkres` command

Return codes from the `pdxtblkres` command mean:

- 0** The command successfully deblocked the resource.
- EINVAL** An error exists with one of the command options.
- ENOATTR** You specified a command option without a value.
- other** Any other return codes that are not in this list are return codes from C functions. See "Return code numbers" on page 113 for explanations.

+ - - - - - End of Programming Interface information - - - - - +

Restrictions

The `pdxtblkres` command can only deblock these types of Xerox resources:

- Command (CMD) files
- Forms Source Libraries (FSLs)
- Ink Source Libraries (ISLs)
- Job Source Libraries (JSLs)

Using the `pdxtblkres` command to block resources

+ - - - - - Programming Interface information - - - - - +

You use the `pdxtblkres` command to block one or more Xerox resource files. The syntax for the command is:

`pdxtblkres [-f filename.ext] [file ...]`

`[-f filename.ext]`

The file name that the command uses in the header record or label record of the blocked resource. If you do not use the `-f` command option, the default name that the command uses depends on how you specified the input data:

- If you explicitly specify the name of a Xerox resource file, the command uses the name of the resource file. The extension for the file name that you specify must be `.cmd`, `.fsl`, `.isl`, or `.jsl`.

- If you use standard input to pass the Xerox resource, the command uses the default name **dfault.jsl**.

Note: The **pdxtblkres** command does not verify that the Xerox resource is a JSL.

If you use the **-f** command option, you can only block one resource at a time.

[*file ...*] The name of the Xerox resource file to block. When the command blocks the resource, it replaces the contents of the existing file with the blocked output. If you do not specify a file name, the command reads from standard input and writes to standard output.

You can specify more than one file. Separate the file names with spaces.

Streams used by the **pdxtblkres** command

The **pdxtblkres** command uses file descriptors while it processes Xerox resources:

fd0 (STDIN) If you do not specify a resource file name with the command, the command reads the deblocked resource from standard input.

fd1 (STDOUT)
If you do not specify a resource file name with the command, the command writes the blocked resource to standard output.

fd2 (STDERR)
The command writes messages from the blocking process to standard error.

Return codes from the **pdxtblkres** command

Return codes from the **pdxtblkres** command mean:

0 The command successfully blocked the resource.

EINVAL An error exists with one of the command options.

ENOATTR You specified a command option without a value.

E2BIG You specified the **-f** command option and more than one input file name.

other Any other return codes that are not in this list are return codes from C functions. See "Return code numbers" on page 113.

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Restrictions

The **pdxtblkres** command can only block these types of Xerox resources:

- CMDs
- FSLs
- ISLs
- JSLs

Chapter 5. Submitting Xerox jobs for data stream conversion

This chapter describes how to convert Xerox Line Conditioned Data Stream (LCDS) and metacode jobs to the Advanced Function Presentation (AFP) format. For a brief overview about working with Xerox jobs, see the **pdxt_jobs** man page that InfoPrint XT for Windows (InfoPrint XT) provides. Enter this command:

```
pdxtman pdxt_jobs
```

Whether you use InfoPrint XT with InfoPrint Manager for Windows (InfoPrint Manager) determines how you use InfoPrint XT to convert the jobs. See the appropriate topic for the type of installation:

- “Processing Xerox jobs with InfoPrint Manager”
- “Using the pdxtx2afp command to process Xerox jobs” on page 61

Processing Xerox jobs with InfoPrint Manager

These topics apply to installations that use InfoPrint Manager with InfoPrint XT.

Document attributes that you specify for processing

You can use several InfoPrint Manager document attributes when you process Xerox jobs with InfoPrint XT. Whether you use an InfoPrint XT parameter mapping file influences which attributes you use for a job. See “Creating a custom parameter mapping file” on page 26.

If you do not use a parameter mapping file, you must specify these attributes for every Xerox job:

document-format

Specify this attribute with a value of either **lcds** or **metacode**. These values are equivalent and identify the associated job as a Xerox job.

other-transform-options

Specify this attribute with a value that lists the conversion parameters that the job requires. See Appendix A, “Conversion parameters for converting Xerox jobs,” on page 93. This is an example of specifying conversion parameters with the **other-transform-options** attribute:

```
-x "other-transform-options='xjdl=p1mvs xjde=df1t xrecfm=fixed x1recl=133 xcc=m'"
```

Note: At a minimum, you must know the starting JDL and JDE pair, the carriage-control type, and the record format of the job. If the job contains fixed records, you must also know the record length.

resource-context

Specify this attribute with a value that identifies the path to the AFP resources that the job requires. For example:

```
-x "resource-context='C:\Program Files\IBM\Infoprint XT\var\pdxt\resources\common'"
```

Note: Whether you use a combination of double and single quotation marks depends on whether any portion of the path name contains spaces. If you use the default for **%PDXTWORKDIR%**, which is **C:\Program Files\IBM\Infoprint XT\var\pdxt**, include the quotation marks.

The value is the same as the path that the **-o** option of the **pdxtloadres**

command specifies, or the path to the resource group that the **-g** option specifies. See “Using the **pdxloadres** command to load Xerox resources” on page 42.

If you use a parameter mapping file, how you set up the mapping file entries determines which of these document attributes you must specify for Xerox jobs:

document-format

You must always specify **lcds** or **metacode** for this attribute.

destination-pass-through

You can specify this attribute with the value or values that you want InfoPrint Manager to pass through. To have InfoPrint XT read information in the parameter mapping file and use the values to compare to mapping file entries, use this format:

```
-x destination-pass-through=-opa=passthru_values
```

The valid keywords and values that you can use with a parameter mapping file are the same ones that you can specify with the **-p** option of the **pdxloadres** command. You can specify one or more keyword and value pairs. See page 62. This is an example of keyword and value pairs that InfoPrint XT can use with the **destination-pass-through** attribute:

```
-x destination-pass-through=-opa=class=D,forms=BILLING
```

If you use only ***=*** keyword and value pairs in the parameter mapping file, you can omit the **destination-pass-through** attribute.

resource-context

You can specify this attribute with a value that identifies the path to the AFP resources that the job requires. If you use the **xinlr** conversion parameter to embed the AFP resources in the data stream for the job, you can omit the **resource-context** attribute. For more information about the **xinlr** conversion parameter, see page 96.

In addition to the attributes already described, as an option, you can specify the **document-comment** attribute. Use this attribute to activate transform directives. See “Using transform directives” on page 29. Whether you use a parameter mapping file does not affect the use of the **document-comment** attribute.

Methods you can use to associate document attributes with a job

InfoPrint XT provides flexibility in the methods that you can use to associate the required attributes and any optional attributes with a job. The most common methods are using Download for z/OS and specifying the attributes directly with the **pdpr** command. See Chapter 6, “Transferring jobs with Download for z/OS,” on page 67, and “Using the **pdpr** command to transform and print Xerox jobs” on page 61.

Less commonly used methods are associating an InfoPrint Manager default document with a logical destination or using an attributes file. To use one of these methods, see the InfoPrint Manager documentation for information about creating default document objects and attributes files. “Bibliography” on page 171 lists InfoPrint Manager publications.

How InfoPrint XT searches for resources

Before you submit Xerox jobs for processing by InfoPrint XT, you must load all the Xerox resources that the jobs require on the Windows system. The load process

creates AFP versions of the Xerox resources. When you submit a Xerox job, those AFP versions of the Xerox resources must be available to InfoPrint XT. This lists the locations in the order that InfoPrint XT searches them for the resources:

1. The path that the InfoPrint Manager **resource-context** document attribute specifies.
2. The path that the **PSFPATH** environment variable specifies.
3. The path that the InfoPrint Manager **resource-context** actual destination attribute specifies.

Notes:

1. Other InfoPrint Manager attributes specify resource paths, such as **resource-context-font** and **resource-context-form-definition**. InfoPrint XT ignores the path information specified with these attributes.
2. When you process jobs that contain FILE Dynamic Job Descriptor Entry (DJDE) commands, InfoPrint XT also uses this search path hierarchy. For FILE DJDE commands that specify the **P** storage parameter, InfoPrint XT loads the associated resources in the first directory that it locates in the search order. For example, if the **resource-context** document attribute specifies **%PDXTWORKDIR%\resources\pdxtest** and the **resource-context** actual destination attribute specifies **%PDXTWORKDIR%\resources\common**, InfoPrint XT loads the FILE DJDE resources in the **%PDXTWORKDIR%\resources\pdxtest** directory. For more information about FILE DJDE storage parameters, see "Processing jobs that contain FILE DJDE commands" on page 65.

Using the **pdpr** command to transform and print Xerox jobs

Use the InfoPrint Manager **pdpr** command and a combination of attributes to print Xerox jobs. You can specify all InfoPrint Manager job and document attributes and all InfoPrint XT conversion parameters directly from the command line.

- To submit the job **SIMPLEX**, which is in the **C:\Inputdata\Jobs** directory, to the **pdxtd** logical destination:

```
pdpr -d pdxt-ld -x document-format=metacode  
-x "other-transform-options='xjdl=plmvs xjde=df1t xrecfm=f xlrecl=133 xcc=m'"  
-x "resource-context='%PDXTWORKDIR%\resources\test C:\Inputdata\Jobs\SIMPLEX'"
```

Using the **pdxtx2afp** command to process Xerox jobs

If you do not have InfoPrint Manager installed, use the InfoPrint XT **pdxtx2afp** command to process a Xerox job. If you only want to convert a job without printing it, you can also use this command in a combined InfoPrint Manager and InfoPrint XT installation. You might find this useful to use the AFP that InfoPrint XT generates for other purposes, or to verify that a job will convert.

Notes:

1. This topic shows the default values for **pdxtx2afp** command options as supplied by InfoPrint XT. You can change the default values using the **PDXTX2AFP_ARGS** environment variable. See "Controlling the default arguments when you process jobs (PDXTX2AFP_ARGS)" on page 23. You can also affect the default values for the **pdxtx2afp** command using a parameter mapping file. See "Creating a custom parameter mapping file" on page 26.
2. You can control some aspects of the conversion process using transform directives. See "Using transform directives" on page 29.

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The syntax of the **pdxtx2afp** command is:

```
pdxtx2afp [-i inputfile | -] [-o outputfile | -]  
          [[-g common | group ]|[-r resourcepath]]  
          [-x "xjdl=dfault xjde=dflt" | "cparms"]  
          [-p passthru_values] [-t "directives"] [-w workingdirectory]
```

[-i *inputfile* | -]

Specifies the name of the original Xerox LCDS or metacode job file. If you specify a dash, -, for this command option, InfoPrint XT reads from standard input (STDIN). If you do not specify the **-i** command option, InfoPrint XT reads from STDIN.

[-o *outputfile* | -]

Specifies the file in which InfoPrint XT writes the AFP output from the conversion process. If you specify a dash, -, for this command option, InfoPrint XT writes to standard output (STDOUT). If you do not specify the **-o** command option, InfoPrint XT writes to STDOUT.

[-g common | *group*]

Specifies the resource group that contains the resources for the job. This group name is the same name that you specified when you loaded the resources with the **pdxtloadres** command. See the **-g** command option on page 45. If you do not specify this command option, InfoPrint XT looks in the common resource group for the resources that the job requires.

If you specify the **-g** command option, do not specify the **-r** command option. If you specify both, InfoPrint XT uses the value of the last command option specified with the command.

[-x "xjdl=dfault xjde=dflt" | "*cparms*"]

Specifies the Xerox-specific conversion parameters for the job. This corresponds to the values that you specify for the **other-transform-options** attribute if you submit the job using the InfoPrint Manager **pdpr** command. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93.

You can specify more than one pair of **-x** parameters and values, up to a maximum of 50. If you do not specify the **-x** command option, InfoPrint XT uses a default of **xjdl=dfault xjde=dflt**.

[-p *passthru_values*]

Specifies pass-through values that you can use to pass information to InfoPrint XT. If you use InfoPrint Manager with InfoPrint XT, this is equivalent to the InfoPrint Manager **destination-pass-through** document attribute. To pass information to InfoPrint XT, use one of these formats:

```
-p passthru_values
```

```
-p -opa=passthru_values
```

When the value for the **-p** command option begins with **-opa=**, InfoPrint XT reads information from the parameter mapping file **pdxtx2afp.map**. It also defines the temporary working directory in **%PDXTWORKDIR%\jobs**. The remainder of the value is a series of one or more keyword and value pairs. Valid keywords and values are:

class=*n*

Specifies the class for the job. This corresponds to the CLASS parameter that you specify if you submit the job with job control language (JCL). *n* is a single character.

destination=*dest*

Specifies the destination for the job. This corresponds to the DEST parameter that you specify if you submit the job with JCL. *dest* is a value from 1 through 8 characters.

forms=*form*

Specifies the name of the form for the job. This corresponds to the FORMS parameter that you specify if you submit the job with JCL. *form* is a value from 1 through 8 characters.

jobid=*jobid*

Specifies an ID for the job. *jobid* is a value from 1 through 8 characters. If you do not specify this keyword, InfoPrint XT uses UNKNOWN for the job ID.

jobname=*name*

Specifies a name for the job. *name* is a value from 1 through 8 characters. If you do not specify this keyword, InfoPrint XT uses UNKNOWN for the job name.

If you specify more than one keyword and value pair, separate the pairs with commas; do not include any spaces.

Note: If you specify any keywords other than those that are shown, InfoPrint XT ignores them.

These examples show different methods of specifying the **-p** command option, with keywords and values that InfoPrint XT can use:

```
-p -opa=class=D,forms=BILLING
```

```
-p -opa=jobname=NOV004
```

[-r *resourcepath*]

Specifies the AFP resource path. This corresponds to the value that you specify for the **resource-context** attribute if you submit the job using the InfoPrint Manager **pdpr** command. If you do not specify this command option, InfoPrint XT looks for resources in the **%PDXTWORKDIR%\resources\common** directory.

If you specify the **-r** command option, do not specify the **-g** command option. If you specify both, InfoPrint XT uses the value of the last command option specified with the command.

[-t "*directives*"]

Specifies any job-specific transform directives. This corresponds to the values that you specify for the **document-comment=PDXTX2AFP_DIRECTIVES:** attribute if you submit the job using the InfoPrint Manager **pdpr** command. For more information, see "Using transform directives" on page 29 and page 31.

[-w *workingdirectory*]

Specifies the working directory that InfoPrint XT uses when it processes the job. Unless errors occur, InfoPrint XT always deletes the files that it creates in this directory after conversion finishes

successfully. If you do not specify this command option, InfoPrint XT uses a subdirectory of the directory that the **PDXTWORKDIR** environment variable specifies as the working directory. InfoPrint XT builds a subdirectory name of *jobname-jobid-n*. *jobname* and *jobid* come from the **-p -opa** values, and *n* is a sequence number. For more information about the **PDXTWORKDIR** environment variable, see “Controlling the working directory that InfoPrint XT uses for variable data (PDXTWORKDIR)” on page 22.

Notes:

1. Any directory that you specify must exist; InfoPrint XT does not create the directory for you.
2. InfoPrint XT ignores the **-k** transform directive when you specify a working directory with the **-w** command option.
3. Whether files remain in a user-specified working directory depends on the severity and the type of error.
4. Only one instance of the **pdxtx2afp** command can use a given working directory at a time. This is because the **pdxtx2afp** command creates and uses files that are not job-specific. For example, the command writes messages to the **x2afp.lst** file. If two instances of the command share the same working directory, you lose the messages from one of the instances.

Streams used by the **pdxtx2afp** command

The **pdxtx2afp** command uses file descriptors while it processes Xerox jobs:

fd0 (STDIN) You can pass the Xerox data stream as standard input to file descriptor zero.

fd1 (STDOUT)

You can instruct InfoPrint XT to write the AFP data stream that results from conversion to file descriptor one.

fd2 (STDERR)

InfoPrint XT writes messages from the conversion process to standard error.

Return codes from the **pdxtx2afp** command

Return codes from the **pdxtx2afp** command have these meanings:

0 The command successfully produced one or more AFP pages.

EINVAL The parameter list for the command contains arguments that are not valid.

E2BIG The parameter list for the command contains too many arguments.

ENOATTR A parameter is missing.

ECONNABORTED

The command converted the job, but it produced no pages because of a non-zero return code from an associated subcommand.

ECONNRESET

The command converted the job, but it produced no pages. Associated subcommands had return codes of zero.

other Any other return codes that are not in this list are return codes from C functions. See "Return code numbers" on page 113 for explanations.

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Examples: pdxtx2afp command

These are examples of **pdxtx2afp** commands for conversion and scanning tasks:

- In this example, the Xerox job and all files that the **pdxtx2afp** command generates are in the **C:\Inputdata\Jobs\51230** directory. The resources for the job are in the InfoPrint XT common resource library:

```
pdxtx2afp -i C:\Inputdata\Jobs\51230\103355000 -o C:\Inputdata\Jobs\51230\103355000.afp
-r %PDXTWORKDIR%\resources\common -w C:\Inputdata\Jobs\51230
-x "xjdl=1bb xjde=pay xcc=machine xclb=none xrefcm=variable xlrecl=32760"
2> C:\Inputdata\Jobs\51230\conversion.log
```

- In this example, the Xerox job is in the current directory. The resources are loaded in the resource library for the resource group named **payroll** (the JDL for the job must be loaded before InfoPrint XT can scan the job successfully). The conversion process only scans the job for the resources that it requires, as specified by the **xconvert=no** conversion parameter. InfoPrint XT does not produce an AFP file for the job. The **x2afp.lst** section of the file **scanlist** contains the names of the resources that the job requires:

```
pdxtx2afp -i .\103355000 -r %PDXTWORKDIR%\resources\payroll
-x "xjdl=1bb xjde=pay xcc=machine xclb=none xrefcm=variable xlrecl=32760
xconvert=no xafprc=12" 2> .\scanlist
```

Processing jobs that contain FILE DJDE commands

In the Xerox environment, the use of FILE DJDE commands is a common method of updating the resources that are on the printer. InfoPrint XT supports jobs that include FILE DJDE commands; you do not have to specify any special conversion parameters to process jobs that contain them.

InfoPrint XT loads the resource that each FILE DJDE specifies in a resource group or in a specific directory location. You control the resource group or location in which InfoPrint XT loads the resources when you submit the job for conversion. When you submit the job with the **pdxtx2afp** command, you can use the **-g** or the **-r** command option to specify the group or location. When you use the **pdpr** command in a combined InfoPrint Manager and InfoPrint XT installation, the search-path hierarchy determines where InfoPrint XT loads the resources. See "How InfoPrint XT searches for resources" on page 60.

The **P** or **D** storage parameter of the FILE DJDE command determines how long InfoPrint XT retains the files that it generates during the resource-load process in the resource group or location:

- FILE DJDE commands that use the **P** storage parameter specify that the associated resources are permanent resources. They remain on the system after the job that specifies them finishes. Permanent resources are then available to subsequent jobs that specify the same resource group or location.
- FILE DJDE commands that use the **D** storage parameter indicate that the associated resources are temporary. InfoPrint XT embeds all temporary resources inline in the AFP data stream that it generates for the job. It then deletes copies of the temporary resource files from the resource group or location after the job finishes conversion. Therefore, subsequent jobs cannot use them.

There might be occasions when you want to embed some or all the permanent resources inline with the AFP data stream for the job. InfoPrint XT provides the `xinlr` conversion parameter, which you can use to specify which permanent resources you want InfoPrint XT to embed. You can specify one or more types of printable resources, such as AFP page segments and AFP character sets. You can also specify that InfoPrint XT embeds all types of printable resources. For the syntax of the `xinlr` conversion parameter, see page 96.

Processing limitations

In the Xerox environment, the printer can only process one job at a time. Because InfoPrint XT can convert jobs simultaneously, a limitation exists that applies to concurrently processing jobs that use FILE DJDEs. If you have several jobs that specify the same resource group or location, do not submit them at the same time. Unpredictable results can occur.

Do not submit a job that uses FILE DJDEs to load two different resources with the same name. For example, if the first report in the job loads one version of the image `abc.img` and the second report loads another version of `abc.img`, unpredictable results can occur.

Including resource-load messages for FILE DJDE jobs

The default is that InfoPrint XT does not include messages about the resources that it loads from FILE DJDE commands. You can instruct InfoPrint XT to include resource-load messages in the `x2afp.lst` file for the job by setting an environment variable. See:

- “Controlling resource-load messages for FILE DJDE jobs (PDXT_AIOLXDFE_TRACE)” on page 24
- “x2afp.lst file” on page 90

Processing jobs that contain stapling commands

You can process jobs that contain Xerox stapling commands with InfoPrint XT. Xerox OUTPUT STAPLE PDL commands, combined with FACEUP and NTO1 commands, specify stapling actions. InfoPrint XT supports these combinations of the three commands:

```
OUTPUT STAPLE=YES and OUTPUT FACEUP=YES and OUTPUT NTO1=YES  
OUTPUT STAPLE=YES and OUTPUT FACEUP=YES and OUTPUT NTO1=n
```

InfoPrint XT provides these conversion parameters that you can specify with the job to control stapling: `xhonorstaple`, `xstaplemax`, `xstapleorient`, and `xstaplesysgen`. For more information about these parameters, see Appendix A, “Conversion parameters for converting Xerox jobs,” on page 93.

Notes:

1. Some restrictions apply when InfoPrint XT processes jobs that contain stapling commands. See page 7.
2. Always review the documentation for your particular printer for the latest information about features and capabilities. For example, stapling capacities and supported media differ between printer models. See these publications:
 - *InfoPrint 2190, 2210, & 2235 Printers (MT 2707): Planning Guide, G550-0952*
 - *InfoPrint 2060ES/2075ES/2090ES/2105ES: Finishing Guide for Printing, S544-5845*
 - *InfoPrint 70 Plus: Introduction and Planning Guide, GA18-7726*
 - *InfoPrint 70: Introduction and Planning Guide, G544-5869*

Chapter 6. Transferring jobs with Download for z/OS

This chapter describes how to set up and use Download for z/OS to submit Xerox jobs for processing by InfoPrint XT for Windows (InfoPrint XT).

Download for z/OS is a communications mechanism that sends jobs to InfoPrint Manager for Windows (InfoPrint Manager). It is a separately orderable feature of IBM Print Services Facility (PSF) for z/OS. When you use Download for z/OS to send jobs for processing by InfoPrint XT, you use these major components:

1. The first component is Download for z/OS. It operates as an output writer, or functional subsystem application, of the job entry subsystem (JES). The output writer sends the output data sets to remote systems on the TCP/IP network.
2. The second component is part of InfoPrint Manager. MVS Download receivers receive data sets from the output writer on z/OS. You create MVS Download receivers through the InfoPrint Manager Management Console.
3. The third component is a download program that the InfoPrint Manager MVS Download receiver calls. This program is typically specific to the data stream in use:
 - InfoPrint Manager provides two sample exit routines for use with MO:DCA-P data without inline resources, line data, and mixed mode data sets. One of the exit routines is written in Microsoft Visual Basic, and the other is written in Microsoft Visual C++. The associated file names begin with **mvsdsubm**.
 - InfoPrint XT provides a program that receives Xerox Line Conditioned Data Stream (LCDS) and metacode jobs. The program name is **pdxtdownload**.

For more information about the output writer on z/OS, see *Print Services Facility for z/OS: Download for z/OS*, S544-5624. For more information about MVS Download receivers and the **mvsdsubm** exit-routine files, see the InfoPrint Manager documentation. "Bibliography" on page 171 lists InfoPrint Manager publications.

Notes:

1. You cannot use the download support that InfoPrint XT provides in installations that do not have InfoPrint Manager installed.
2. For information about using download functions, see the **pdxt_download** man page that InfoPrint XT provides. Enter this command:

```
pdxtman pdxt_download
```

What the InfoPrint XT **pdxtdownload** program does

The InfoPrint XT **pdxtdownload** program receives Xerox LCDS and metacode jobs. It then submits them to InfoPrint Manager using the **pdpr** command. During job processing, **pdxtdownload** merges data sets for jobs that contain more than one data set and translates z/OS job information to InfoPrint Manager attributes.

Notes:

1. You do not have to use **pdxtdownload** to receive Xerox LCDS and metacode jobs. You can write your own program, or you can modify the InfoPrint Manager **mvsdsubm** exit routines.
2. The **pdxtdownload** program does not automatically set the **document-format**, **other-transform-options**, and **resource-context** attributes. You must define these

externally. For example, you can use an attribute mapping file to set the attributes based on the characteristics of the job. See "Using JCL parameters to assign InfoPrint Manager attributes" on page 70 and "Creating an attribute mapping file" on page 71.

3. You can use the **pdxtdownload** program to receive other data streams, such as PCL and PostScript jobs. This publication does not describe how to process PCL or PostScript jobs. Also, if you use the default setting of **YES** for the **SEND_REC_LENGTH** parameter on z/OS, z/OS adds a 2-byte length field to the beginning of each record. This prevents InfoPrint Manager from correctly recognizing the data format as PCL or PostScript.

Note: Use a setting of **SEND_REC_LENGTH=YES** for Xerox data sets and set the **xrcfm** conversion parameter for the jobs to **variable** on the Windows system.

Setting up Download for z/OS

Print Services Facility for z/OS: Download for z/OS, S544-5624, contains detailed information about installing and configuring Download for z/OS. Use this as a checklist to make sure that the required tasks are done:

1. Create one or more Download for z/OS functional subsystems (FSSs) on z/OS. You can then route jobs to Download for z/OS using routine methods for routing jobs to printers. For example, you can route them through the output class or the destination.
2. Create a routing-control data set that specifies to Download for z/OS the TCP/IP address and port number of the Windows system. The port number must be the same as the port number that you use when you create the MVS Download receiver on the Windows system. Figure 6 shows a sample routing-control data set:

```
/**** Route data sets with destination PRT01 or PRT02 *****/
DEST=PRT01,PRT02, /* All data sets with destination PRT01 or PRT02
CLASS=Q, /* and a CLASS of Q
IPADDR=9.99.176.136, /* Send to the Windows system with this IP address
PORTNUM=7777; /* at this port number

/**** Routing Criteria 2 *****/
CLASS=R, /* All data sets with CLASS R
FORMS=BILLS, /* and with form name BILLS
RECEIPTS, /* or form name RECEIPTS
IPADDR=9.99.176.138, /* Send to the Windows system with this IP address
PORTNUM=6001, /* at this port number
RETRYNUM=3, /* Retry 3 times if transmission fails
RETRYINTV=60; /* Wait 60 seconds between retries
```

Figure 6. Sample z/OS routing-control data set

3. Set up the Download for z/OS Print Parameters Exit 15, either **APSUX15** or **APSUC15**, as required for the installation. If you process jobs that contain more than one data set, you must make sure that the exit passes the output group identifier with the **-opa** parameter. The **OUTGRP** parameter specifies the output group identifier as **FIRST**, **NEXT**, or **LAST**.
4. Start the Download for z/OS FSS on z/OS.

Creating InfoPrint Manager MVS Download receivers

When you create an InfoPrint Manager MVS Download receiver through the InfoPrint Manager Management Console, you specify **pdxtdownload** as the exit program name. This causes the receiver to call **pdxtdownload** for each job that it receives. See the InfoPrint Manager publications for detailed information about creating MVS Download receivers. This is an abbreviated version of the steps, with information that is pertinent to InfoPrint XT:

1. Open the InfoPrint Manager Management Console.
2. From the menu bar, click **Edit→New→MVS Download Receiver**. The Add MVS Receiver dialog opens.
3. In the **Port Number** field, enter the port number that you want this receiver to use when it communicates with the host system. This is the same number that you used for the Windows system when you updated the routing-control data set on z/OS. See Figure 6 on page 68.
4. Select a logical destination for the **Target Destination** field. The logical destination must send jobs to an actual destination that is configured for use with InfoPrint XT. For more information, see “Using the pdxtsetdest command to update InfoPrint Manager actual destinations” on page 15.
5. You can accept the default for the **Destination Control File** field. InfoPrint XT does not use information from this file. Instead, it uses its own **pdxtdownload.map** file to automatically assign InfoPrint Manager document and job attributes. See “Creating an attribute mapping file” on page 71.

Note: The default destination control file that InfoPrint Manager provides causes the MVS Download receiver to use the DEST value for the job as the name of the logical destination. To specify a different logical destination, you can use the **-q** download directive, or you can set the **destination-name-requested** attribute in the attribute mapping file. See page 77, and “Creating an attribute mapping file” on page 71.

6. In the **Exit Program Name** field, enter the drive, path, and file name for **pdxtdownload**:

```
C:\Program Files\IBM\Infoprint XT\bin\pdxtdownload.exe
```

You can use the **Browse** function rather than typing the path.

Note: If you installed InfoPrint XT in a directory other than the default **C:\Program Files\IBM\Infoprint XT** directory, specify that path instead.

7. If you process jobs that contain several data sets and you want to merge the data sets, disable parallel processing. Clear the **Enable parallel processing** check box. For more information, see “Processing jobs that contain more than one data set” on page 73.
8. Clear the **Retain command files** check box. If you leave this selected, the receiver retains the JCL files for jobs, and you must manually discard them.
9. Click **OK** to create and start the receiver.

Note: When InfoPrint Manager creates the MVS Download receiver, it creates a working directory for the receiver. This directory is **C:\Program Files\IBM\Infoprint Manager\var\pd\mvsd\Receiver *n***. *n* is a unique number for the receiver. InfoPrint XT uses this directory to store certain files that relate to download processing.

Using JCL parameters to assign InfoPrint Manager attributes

When an MVS Download receiver receives a data set and calls the **pdxtdownload** program, it passes a series of options and values. Some of the values, such as the job title, come from the job control language (JCL) statements that submitted the data set. Other values, such as the job identifier, come from z/OS itself.

The **pdxtdownload** program translates most of these options to InfoPrint Manager attributes. Table 10 shows how **pdxtdownload** uses the options and values that it receives from the receiver.

Table 10. InfoPrint Manager attribute assignments when using the **pdxtdownload** program

Information from z/OS that passes to the MVS Download receiver	Receiver options that pass to pdxtdownload	InfoPrint Manager attributes that pdxtdownload assigns
ADDRESS	-oaddress1 -oaddress2 -oaddress3 -oaddress4	address1-text address2-text address3-text address4-text
APSUX15	-opa OUTGRP	Not applicable
BUILDING	-obu	building-text
CLASS	-opa class	destination-pass-through=-opa=class class
COPIES	-ocop	results-profile ²
DATAACK	-odatac	data-fidelity-problem-reported
DCB=RECFM	-occ -occtype	Not applicable ¹
DCB=OPTCD=J	-otrc	Not applicable ¹
Not applicable	-odatat	Not applicable ¹
DEPT	-ode	department-text
DEST	-opa destination	destination-pass-through=-opa=destination mvs-destination
DEST=IP	-oipdest	Not applicable
DUPLEX	-odu	sides plex
FCB	-opagedef	Not applicable ¹
FORMDEF	-of	Not applicable ¹
FORMS	-opa forms	destination-pass-through=-opa=forms forms mvs-forms
INTRAY	-oin	Not applicable
Job ID	-opa jobid	destination-pass-through=-opa=jobid
Job Name	-ojobn	job-name
NAME	-ona	name-text

Table 10. InfoPrint Manager attribute assignments when using the `pdxdownload` program (continued)

Node ID	-ono	node-id-text
OFFSETXB	-ooffxb	x-image-shift-back
OFFSETXF	-ooffxf	x-image-shift
OFFSETYB	-ooffyb	y-image-shift-back
OFFSETYF	-ooffyf	y-image-shift
OUTBIN	-outbin	Not applicable
OVERLAYB	-oovlyb	Not applicable ¹
OVERLAYF	-oovlyf	Not applicable ¹
PAGEDEF	-opagedef	Not applicable ¹
PRMODE	-oprmode	shift-out-shift-in
Programmer	-opr	programmer-text
PRTQUEUE	-prtqueue	destination-name-requested ³ other attributes ⁴
RESFMT	-ore	Not applicable ¹
ROOM	-oro	room-text
SEGMENT	-opa segmentid	destination-pass-through=-opa=segmentid mvs-segment-id
Source File	-ofileformat	Not applicable ¹
TITLE	-oti	title-text
TRC	-otrc	Not applicable ¹
UCS	-ochars	Not applicable ¹
User ID	-ous	user-id-text

Notes:

1. These apply to AFP (MO:DCA-P) data sets. They do not apply to Xerox jobs.
2. This applies when you use the **-m none** download directive. See “Using download directives” on page 74.
3. This applies when you use the **-q ldest** download directive.
4. This applies when you use the **-q ldest** or **-q attr** download directives.

For jobs with more than one data set, **pdxdownload** uses only the options from the last data set for the job. It ignores options for all preceding data sets.

Creating an attribute mapping file

InfoPrint XT can automatically assign InfoPrint Manager attributes to a job based on criteria that you specify. You specify the criteria in an attribute mapping file. The default attribute mapping file is **pdxdownload.map**. It is in the **%PDXTWORKDIR%** directory. You can specify a different file with the **-a** download directive; see page 74.

The attribute mapping file contains attribute groups. An attribute group consists of one or more expressions and one or more attribute-and-value pairs. The expressions are in the form *keyword=value*. They specify the criteria to match. When

a job matches the criteria, InfoPrint XT assigns the attribute-and-value pairs that follow the expression to the job. When you edit an attribute mapping file, make sure that the expressions start in the first column of the file. Precede attribute-and-value pairs by one or more blank spaces. Put each attribute-and-value pair on a separate line. For example:

```
keyword=value
  attribute=value
  attribute=value
```

These rules apply to attribute mapping files:

- The keywords that you can use in the expressions are the same as the MVS Download receiver options shown in the middle column of Table 10 on page 70. The **-opa** option is further split into these individual keywords:
 - **class**
 - **destination**
 - **forms**
 - **jobid**
 - **OUTGRP**
 - **segmentid**
- You can use the special keyword-and-value pair ***=*** to specify that the attribute group applies to all jobs.
- Do not include spaces between a keyword and value. Do not include spaces in the value itself.
- Values for the keywords can be any string. The value can include the wildcard characters **?** and *****. The question mark matches any single character. The asterisk matches any number of characters.
- Both keywords and values are case-sensitive.
- You cannot use wildcard characters to define the keyword to match. For example, **-ooffx*** is not valid for matching both the **-ooffxb** and **-ooffxf** keywords.
- The attribute mapping file can contain blank lines and comment lines, which InfoPrint XT ignores. Comment lines start with a number sign, **#**.
- You cannot include comments on keyword lines or on attribute lines.
- Two or more keywords on a single line represent an *and* condition. Jobs must match all the keywords to use the associated attributes.
- Two or more keywords on separate lines represent an *or* condition. Jobs can match any one of the keywords to use the associated attributes.
- InfoPrint XT checks all attribute groups in the file. A job can match the criteria for more than one group and thereby use attributes from several groups. The associated attribute-and-value pairs can complement or override each other; if several groups specify the same attribute, InfoPrint XT uses the last occurrence of the attribute.

Figure 7 on page 73 shows examples of various types of attribute groups.

```

#-----#
# All jobs contain Xerox data streams      #
#-----#
**
    document-format=metacode

#-----#
# Send all jobs from userid SMITH to logical #
# destination smith and limit them to 10 pages #
#-----#
-ous=SMITH
    destination-name-requested=smith
    page-select=:10

#-----#
# Class D jobs, class E jobs, and any jobs with #
# names that start with INV use resources from #
# %PDXWORKDIR%\resources\inventory          #
#-----#
class=D
class=E
-ojobn=INV*
    resource-context=C:\Program Files\IBM\Infoprint XT\resources\inventory

#-----#
# Jobs with class D and forms INSURE use resources from #
# C:\Program Files\IBM\Infoprint XT\var\pdx\resources\insurance #
#-----#
class=D forms=INSURE
    resource-context=C:\Program Files\IBM\Infoprint XT\var\pdx\resources\insurance

```

Figure 7. Completed attribute mapping file

You can also use substitute values from the MVS Download receiver options in expressions. A substitute value is a keyword that you delimit with a leading and trailing pair of percent signs. This is an example of how to use a substitute value:

```

#-----#
# Use the FORMS value as the resource group #
# for all jobs                             #
#-----#
**
    resource-context=C:\Program Files\IBM\Infoprint XT\var\pdx\resources\%%forms%%

```

In this example, if FORMS=BLUE is specified for the job on z/OS, InfoPrint XT assigns this InfoPrint Manager attribute to the job:

```
resource-context=C:\Program Files\IBM\Infoprint XT\var\pdx\resources\BLUE
```

If InfoPrint XT does not recognize the substitute value, it passes the attribute-and-value pair to InfoPrint Manager exactly as it is in the attribute mapping file.

Processing jobs that contain more than one data set

For jobs that contain several data sets, Download for z/OS sends each data set separately to the MVS Download receiver. In turn, the receiver calls the **pdxdownload** program once for each data set.

If you use the **-m 1document**, **-m 1jobcop**, or **-m 1jobdup** download directive, **pdxdownload** can submit the data sets to InfoPrint Manager as a single job. You must do these tasks if you use any of the directives that cause **pdxdownload** to merge the data sets:

- You must install Print Parameters Exit 15 on z/OS. This causes the output writer to include sequence information with the data sets as it sends them. You can use either APSUX15 or APSUC15. PSF for z/OS provides these exits.
- On the Windows system, make sure that you disable parallel processing when you create the InfoPrint Manager MVS Download receiver. If the receiver that you want to use to receive jobs that contain several data sets has parallel processing enabled, delete the receiver and re-create it.

If you use the **-m 1document** download directive, all the data sets in the job must use the same type of carriage control. If one or more of the data sets uses a different type of carriage control, you can use the **-p** download directive to convert the carriage controls. For information about the directive, see page 76.

Using download directives

InfoPrint XT provides download directives that you can use to control some aspects of the overall download process. For example, you can use a download directive to tell InfoPrint XT how to handle jobs that contain more than one data set.

InfoPrint XT provides these download directives:

- a** Specifies the name of an attribute mapping file. The default mapping file is **pdxtdownload.map**. It is in the **%PDXTWORKDIR%** directory. You can change the mapping file with the **-a** directive. The file that you specify must already exist. It can be in any directory. Include the path with the file name. For more information, see “Creating an attribute mapping file” on page 71.
- c** Specifies how **pdxtdownload** builds the InfoPrint Manager **job-comment** attribute:
 - options** **pdxtdownload** stores all the MVS Download receiver options in the **job-comment** attribute for the job. This is the default.
 - jobid** **pdxtdownload** stores the z/OS job identifier in the **job-comment** attribute for the job.
 - none** **pdxtdownload** does not set the **job-comment** attribute for the job.
- d** This multi-valued directive specifies the debug options for the **pdxdownload** program. If you specify more than one value, separate the values with commas:
 - nofiles** Discards attributes files, ***.att**, and data set list files, ***.dsl**, after submitting jobs to InfoPrint Manager. This is one of the defaults.
 - files** Keeps attributes files and data set list files after submitting jobs to InfoPrint Manager.
 - nojobs** Discards job data files after submitting jobs to InfoPrint Manager. This is one of the defaults.
 - jobs** Keeps job data files after submitting jobs to InfoPrint Manager.
 - submit** Submits jobs to InfoPrint Manager. This is one of the defaults.

nosubmit

Does not submit jobs to InfoPrint Manager.

Note: Use this download directive only at the direction of a technical support representative.

-j Controls whether **pdxtdownload** adds the z/OS job identifier as a prefix to the input file name before it submits the job to InfoPrint Manager:

yes **pdxtdownload** adds the z/OS job identifier to the input file name. This is the default.

no **pdxtdownload** does not add the z/OS job identifier to the input file name.

-l Specifies what **pdxtdownload** writes to the receiver log. For more information, see "Receiver log" on page 79:

error **pdxtdownload** writes information to the receiver log for any jobs that had errors. It does not write information for jobs that completed processing successfully. This is the default.

all **pdxtdownload** writes information to the receiver log for all jobs.

none **pdxtdownload** does not write information to the receiver log.

-m Specifies how InfoPrint XT handles jobs that contain several data sets:

1document

pdxtdownload submits the data sets to InfoPrint Manager as a single job that contains a single document. Use this directive for Xerox LCDS and metacode data sets.

pdxtdownload creates the single document by concatenating all the data sets together in a single file. If the JCL specified a number of copies, the file contains the copies.

1document is the default.

1jobcop

pdxtdownload submits the data sets to InfoPrint Manager as a single job that contains one document for each data set. If the JCL specified a number of copies, **pdxtdownload** sets the **copy-count** document attribute. Use this directive for data sets that contain data streams other than Xerox LCDS or metacode, such as PCL or PostScript data sets.

Notes:

1. This publication does not go into detail about processing PCL or PostScript jobs. Also, make sure that z/OS does not prepend record-length information to each record in the job. InfoPrint Manager recognizes PCL and PostScript data by the values in the first bytes of the job. Record-length information prevents InfoPrint Manager from correctly identifying the type of data.
2. Because Xerox data streams are record-oriented, they require record-length information to distinguish between the individual records, if the records vary in length. Non-Xerox data streams, such as PCL and PostScript, are stream-oriented, so record lengths corrupt the data stream.

1jobdup

pdxtdownload submits the data sets to InfoPrint Manager as a

single job that contains one document for each copy of each data set. Use this directive for data sets that contain data streams other than Xerox LCDS or metacode, such as PCL or PostScript data sets.

none **pdxtdownload** submits each individual data set to InfoPrint Manager as a separate job that contains a single document. If the JCL specified a number of copies, **pdxtdownload** sets the **results-profile** attribute for the job.

Note: **pdxtdownload** always processes jobs that contain a single data set as though the **-m none** command option is in effect.

-p Specifies how **pdxtdownload** pre-processes data sets as it receives them. For Xerox LCDS and metacode jobs, you might need to pre-process the data sets before InfoPrint XT can process them. For example, if you merge multi-dataset jobs together as a single job, make sure that all data sets use the same type of carriage control.

The operands for the **-p** directive consist of *keyword=value* pairs. You can specify more than one operand with the directive; separate operands with commas:

a2m Specifies whether **pdxtdownload** converts ISO/ANSI carriage controls to machine carriage controls:

a2m=none

pdxtdownload does not convert the carriage controls. This is the default.

a2m=multi

pdxtdownload converts the carriage controls for multi-dataset jobs.

a2m=all

pdxtdownload converts the carriage controls for all jobs.

Note: If you do not transfer online Xerox jobs from z/OS with Download for z/OS and the jobs contain both ANSI and machine code carriage controls, the AFP that InfoPrint XT generates can be wrong. You can use the **xpctest** conversion parameter to process online jobs with mixed carriage controls that you transfer through methods other than Download for z/OS. See page 99.

addmcc

Specifies whether **pdxtdownload** adds machine carriage controls to data sets that have none:

addmcc=none

pdxtdownload does not add machine carriage controls. This is the default.

addmcc=multi

pdxtdownload adds machine carriage controls to multi-dataset jobs.

addmcc=all

pdxtdownload adds machine carriage controls to all jobs.

addskip

Specifies whether **pdxtdownload** adds a skip-to-channel-one carriage control to the beginning of data sets that do not have one:

addskip=none

pdxtdownload does not add skip-to-channel-one carriage controls. This is the default.

addskip=multi

pdxtdownload adds skip-to-channel-one carriage controls to multi-dataset jobs.

addskip=all

pdxtdownload adds skip-to-channel-one carriage controls to all jobs.

Note: **pdxtdownload** adds skip-to-channel-one carriage controls only to data sets that you process with the **a2m** and **addmcc** operands. If you specify **a2m=none** and **addmcc=none**, **pdxtdownload** ignores the **addskip** operand.

countrec

Specifies whether **pdxtdownload** counts records:

countrec=no

pdxtdownload does not count records. This is the default.

countrec=yes

pdxtdownload counts records.

When you specify **countrec=yes** to cause **pdxtdownload** to count records and pages, InfoPrint XT sets the InfoPrint Manager **record-count** and **page-count** document attributes. **pdxtdownload** counts pages by counting the number of records that have a skip-to-channel-one carriage control. If it does not find any skip-to-channel-one carriage controls, it does not set the **page-count** attribute. The number of skip-to-channel-one carriage controls does not always reflect the true number of pages in the data stream when the job prints. InfoPrint XT sets the **page-count** attribute to the true number of pages when it converts Xerox LCDS and metacode jobs to AFP. Operators can use the page-count value that **pdxtdownload** sets to estimate the size of the printed output for workflow purposes.

Notes:

1. **pdxtdownload** honors **countrec=yes** only when the resulting job contains a single document.
2. At the point that **pdxtdownload** sets the initial value of the **page-count** attribute, it does not try to distinguish logical pages from physical pages.
3. If you have multi-dataset jobs and their carriage controls are not consistent, specify the **-p** directive with these operands:

```
-p a2m=multi,addmcc=multi,addskip=multi
```

-q Specifies how **pdxtdownload** interprets the **PRTQUEUE** value from z/OS:

ldest

pdxtdownload uses the first word of the value for the **destination-name-requested** attribute. It passes any remaining text as InfoPrint Manager attributes. This is the default.

For example, if the **PRTQUEUE** statement has this value:

```
PRTQUEUE='IP4000 initial-value-document=default'
```

pdxtdownload passes both the **destination-name-requested** attribute and the **initial-value-document** attribute.

attr pdxtdownload uses the entire value as InfoPrint Manager attributes. For example, if the **PRTQUEUE** statement has this value:

```
PRTQUEUE='room-text=B12-4 title-text=DRAFT'
```

pdxtdownload passes the **room-text** and **title-text** attributes to InfoPrint Manager.

ignore pdxtdownload ignores the **PRTQUEUE** value.

Enabling download directives

You can enable download directives using one or both of these methods:

PDXTDOWNLOAD_DIRECTIVES environment variable

Download directives defined by the **PDXTDOWNLOAD_DIRECTIVES** environment variable apply to any data set that **pdxtdownload** receives while the environment variable is in effect. If you set the environment variable as a system variable, it is available to all user accounts on the Windows system. If you set it as a user variable, it is only available to the user account from which you set the variable. For more information about setting environment variables, see "Setting environment variables" on page 21.

Notes:

1. After you add the environment variable, log out of Windows and log back in to pick up the change.
2. You must stop and restart the InfoPrint Manager MVS Download receiver.

%PDXTWORKDIR%\pdxtdownload.directives file

Download directives defined in the **pdxtdownload.directives** file can apply to any data set that **pdxtdownload** receives, or they can apply to data sets received on a specific port number. For example:

```
# Port 6001:  
# - Do not merge jobs with more than one dataset  
6001: -m none  
  
# All ports:  
# - Do not prepend the job identifier to input file names  
*: -j no
```

pdxtdownload file naming conventions

These topics describe the various file naming conventions that the **pdxtdownload** program uses during job processing.

Input data sets

The InfoPrint Manager MVS Download receiver uses this file naming convention for data sets that it receives from z/OS:

```
system.jobname[.step_name].form_name.date.time.PRD
```

pdxtdownload always adds a data set sequence number to the end of the input file name. As an option, it can also add the z/OS job identifier to the beginning of the file name. The resulting file name convention looks like this:

`[jobid.]system.jobname[.step_name].form_name.date.time.PRD.seq#`

Note: For single-data set jobs, the data set sequence number is always 0.

Receiver log

The file name of the receiver log is **pdxtdownload.portnumber.log**. *portnumber* is the port number that you specified when you created the InfoPrint Manager MVS Download receiver. The receiver log is in the directory for the MVS Download receiver. The receiver log contains information about the download process, such as the information sent from z/OS to the receiver for the job, download directives that are in effect, and the information that the **pdxtdownload** program passed to InfoPrint Manager. The log also contains error information that you can use for diagnostic purposes. This is an example of the type of information that the receiver log contains:

```

5016-701 2007-11-11 13:48:31 MDT (ppid 1/pid 1355) port=6001 - receipt started

5016-711 Download arguments:
5016-712   i_inpfile = DEVL.WALLINGK.STEPAAAA.XPORT.2004232.13482935529.PRD
5016-712   i_options = -odatat=line -ofileformat=record -occ=yes -occtype=a -ochars=GF10 -opagedef=PIA06462
-of=F1A10110 -ocop=001 -odatac=block -ojobn=WALLINGK -ous=WALLING -ono=BLDPDEVL -opr=KATHYWALLING-WAITE
-oprtqueue=KW7007-ld -opa=forms=XPORT,class=J,destination=BALLA,jobid=JOB00403,OUTGRP=FIRST
5016-712   i_queue = balla

5016-721 Download directives (/dev/fs/C/Program Files/IBM/var/pdxt/pdxtdownload.directives):
5016-722   -l = "all"
5016-722   -p = "a2m=all,addmcc=all,addskip=all,countrec=yes"
5016-722   -j = "yes"
5016-722   -d = "files,jobs"

5016-731 Command: cat JOB00403.DEVL.WALLINGK.STEPAAAA.XPORT.2004232.13482935529.PRD.1 >> pdxtdownload.6001.cat
5016-732   rc = 0

5016-702 2007-08-19 13:48:31 MDT (ppid 1/pid 1355) port=6001 (rc 0) - receipt ended

5016-701 2007-08-19 13:48:32 MDT (ppid 1/pid 1291) port=6001 - receipt started

5016-711 Download arguments:
5016-712   i_inpfile = DEVL.WALLINGK.STEPAAAM.XPORT.2004232.13482955238.PRD
5016-712   i_options = -odatat=line -ofileformat=record -occ=yes -occtype=m -ochars=GF10 -opagedef=PIA06462
-of=F1A10110 -ocop=001 -odatac=block -ojobn=WALLINGK -ous=WALLING -ono=BLDPDEVL -opr=KATHYWALLING-WAITE
-oprtqueue=KW7007-ld -opa=forms=XPORT,class=J,destination=BALLA,jobid=JOB00403,OUTGRP=LAST
5016-712   i_queue = balla

5016-721 Download directives (/dev/fs/C/Program Files/IBM/var/pdxt/pdxtdownload.directives):
5016-722   -l = "all"
5016-722   -p = "a2m=all,addmcc=all,addskip=all,countrec=yes"
5016-722   -j = "yes"
5016-722   -d = "files,jobs"

5016-731 Command: cat JOB00403.DEVL.WALLINGK.STEPAAAM.XPORT.2004232.13482955238.PRD.2 >> pdxtdownload.6001.cat
5016-732   rc = 0

5016-731 Command: pdpr -g -r brief -X pdxtdownload.6001.att -Z pdxtdownload.6001.dsl < /dev/null >&2
5016-732   rc = 1

pdpr: 5010-625 Cannot recognize attribute detsination-name-requested.

5016-707 pdxtdownload.6001.att:
record-count=21
page-count=2
job-name=WALLINGK
node-id-text=BLDPDEVL
programmer-text=KATHYWALLING-WAITE
user-id-text=WALLING
results-profile=:1:
data-fidelity-problem-reported=none
destination-pass-through='-opa=class=J,destination=BALLA,forms=XPORT,jobid=JOB00403,jobname=WALLINGK'
class=J
mvs-destination=BALLA
mvs-forms=XPORT
forms=XPORT
job='-odatat=line -ofileformat=record -occ=yes -occtype=m -ochars=GF10 -opagedef=PIA06462 -of=F1A 10110
-ocop=001 -odatac=block -ojobn=WALLINGK -ous=WALLING -ono=BLDPDEVL -opr=KATHYWALLING-WAITE -oprtqueue=KW7007-ld
-opa=forms=XPORT,class=J,destination=BALLA,jobid=JOB00403,OUTGRP=LAST '
destination-name-requested=KW7007-ld
detsination-name-requested=KW7007-ld

5016-707 pdxtdownload.6001.dsl:
-n 1
-f JOB00403.DEVL.WALLINGK.STEPAAAM.XPORT.2004232.13482955238.PRD.2

5016-702 2007-11-11 13:48:32 MDT (ppid 1/pid 1291) port=6001 (rc 1) - receipt ended

```

Figure 8. Sample Download receiver log

Note: InfoPrint XT only includes a **5016-707** message, which lists the contents of the **pdxtdownload.port.att** file, if **pdpr** errors occur.

Temporary files

pdxtdownload uses several temporary files. The temporary files are in the directory for the MVS Download receiver. The names of these files all use the format **pdxtdownload.*.extension**:

- The value of * depends on whether **pdxtdownload** merges data sets for jobs that contain several data sets. If **pdxtdownload** merges data sets, the value is the port number on which the data set was received. If **pdxtdownload** does not merge data sets, the value is *pidnnnnn*. *pidnnnnn* is the **pdxtdownload** process identifier.

- The value of *extension* is one of these:

att Contains the document and job attributes. When **pdxtdownload** submits the job to InfoPrint Manager, it specifies this file with the **pdpr -X** command option.

cat Contains the data sets for the job. It only exists when you use the **-m 1document** download directive to merge data sets for jobs that contain several data sets.

cnt Contains record and page-count information.

dsl Contains the **pdpr** command options that specify the number of copies to print and the files that make up the individual documents of the job. The **-n** command option specifies the number of copies. The **-f** command option specifies the file name. The **dsl** file contains two lines for each document in the job:

```
-n copies_for_document_A  
-f document_A  
-n copies_for_document_B  
-f document_B
```

When **pdxtdownload** submits the job to InfoPrint Manager, it specifies the **dsl** file with the **pdpr -Z** command option.

joblog Contains **pdxtdownload** messages for a given job. After **pdxtdownload** receives all the data sets for a job, it moves the contents of this file to the receiver log.

Unless an unrecoverable error occurs, **pdxtdownload** removes all the temporary files except the receiver log.

Restrictions

These restrictions apply when you use the **pdxtdownload** program:

- Do not use **pdxtdownload** to receive AFP (MO:DCA-P) data streams. Use the InfoPrint Manager **mvsdsubm** exit routines for this instead.
- If you use an InfoPrint Manager 2000 DSS, you must add these attributes to the **document-attributes-supported** attribute of the InfoPrint Manager 2000 actual destination:
node-id-text
room-text
user-id-text
- Do not create an MVS Download receiver with command-file retention enabled. Enabling this option causes the receiver to retain the JCL files for jobs. You must manually discard these files; no mechanism exists to remove them automatically.

Chapter 7. Troubleshooting InfoPrint XT

This chapter describes how to diagnose and correct problems when you transform Xerox jobs with InfoPrint XT for Windows (InfoPrint XT). It also describes customer responsibilities for problem determination and how to place a service call to report a problem.

Note: Some topics in this chapter use the term *ServerName_JobIdentifier*. In combined InfoPrint Manager for Windows (InfoPrint Manager) and InfoPrint XT installations, *ServerName_JobIdentifier* is the InfoPrint Manager job identifier. The job identifier consists of the name of the InfoPrint Manager server that processed the job, followed by an underscore and a 10-digit number.

Problem determination: The job resulted in some type of printed output

If you experience problems when you process Xerox jobs, you can begin diagnostic testing by determining whether you received any type of printed output for the job. Printed output is anything that prints for the job, including an InfoPrint XT error sheet. For installations that use InfoPrint Manager with InfoPrint XT, printed output includes an InfoPrint Manager header page or an InfoPrint Manager error page. Review the topics in this section if the job resulted in printed output:

Did the job print, but the pages of the job contained printing errors?

Printing errors on the pages of the job might include data placed at the wrong position on the page or Xerox control information, such as DJDE statements, that print as part of the job data. First, verify the Xerox-specific conversion parameters and values for the job. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93.

Note: Whether InfoPrint XT creates Advanced Function Presentation (AFP) output for a Xerox job that has errors in the conversion parameters depends on the severity of the errors. Appendix D, "Resource utility messages and data stream converter messages: AIOxxxxxxx," on page 121 describes error severities.

If you use InfoPrint Manager, also verify that the value of the **document-format** attribute for the job is either **lcds** or **metacode**. If the attribute specifies a different format, and depending on what that format is, you might receive printed output that is completely incorrect. For example, if the value is **ascii** for a Xerox job, the printed output might be unreadable. If the job is still on the system, you can issue this command to determine the document format specified for the job:

```
pdls -c job -r document-format ServerName_JobIdentifier
```

If the job is not on the system, submit it again and specify the InfoPrint Manager **job-hold=true** attribute. InfoPrint Manager accepts the job, but does not continue to process it. You can then query for the value of the **document-format** attribute. This example shows how you can submit a job from the command line and specify the **job-hold** attribute. The example assumes that the logical destination supplies all other attributes and conversion parameters for the job:

```
pdpr -p ldest -x job-hold=true drive:\path\jobname
```

Note: An incorrect document format value can also result in no printed output.

Did an InfoPrint Manager header page and an InfoPrint XT error sheet print?

InfoPrint XT generates an error sheet if it cannot create any AFP pages for the Xerox job. The error sheet prints after the InfoPrint Manager header page and includes messages from the transform process. See “Diagnostic and informational files that InfoPrint XT produces” on page 89 for more information.

If the InfoPrint XT error sheet printed, use the information that it contains to do diagnostic tasks. Some common things that you can check for include whether you specified the correct Xerox JDE and JDL pair for the job. You must provide the same Xerox START command information to InfoPrint XT that you enter at a Xerox printer. The **JDL=** and **JDE=** parameters in the **x2afp.lst** section of the error sheet that InfoPrint XT produces identify the starting JDE and JDL pair that InfoPrint XT used. Also, make sure that all values specified with the **other-transform-options** document attribute are correct. Then, verify that you have loaded the JDL and all other resources that the job requires on the system. See Chapter 4, “Loading Xerox resources,” on page 37.

Verify that the path you specified with the **resource-context** attribute is correct. This path specifies the location of the converted, AFP resources for the job. InfoPrint XT also uses this path to determine the location of the metrics files for the resources, which it uses in data stream conversion.

Did an InfoPrint Manager header page and an InfoPrint Manager error page print?

An InfoPrint Manager error page contains messages that begin with the prefixes **0420** through **0425**, and **5010**. A common cause of InfoPrint Manager errors is specifying the incorrect path to the AFP resources for the job. InfoPrint Manager uses the resources when the job actually prints. Use the InfoPrint Manager **pdmsg** command to determine the cause of the problem. For example, if the error page included error message **0423-311**, enter this command:

```
pdmsg 0423-311
```

Were none of the previous items true?

If none of the previous items were true, continue with combined InfoPrint Manager and InfoPrint XT diagnostic tasks. See “Problem determination: The job resulted in no printed output.”

Problem determination: The job resulted in no printed output

Note: See “Problem determination: Processing jobs through Download for z/OS” on page 87 if you submit the job from z/OS using Download for z/OS.

If you submit a Xerox job and you receive no printed output, including no header page and no error sheet, check these items:

Was the value of the document-format attribute for the job correct?

For a Xerox job, the value of the **document-format** attribute must be either **lcds** or **metacode**. If the value of the attribute specifies another format that requires conversion processing by InfoPrint Manager, processing might fail. For example, if the document format value for a Xerox job was incorrectly specified as **line-data**, InfoPrint Manager tries to use its **line2afp** transform

to convert the job. When it cannot complete the conversion, InfoPrint Manager changes the status of the job to **held** and does not print any of the job. You can issue these commands to do diagnostic tests if nothing prints for the job:

- Determine whether InfoPrint Manager still has control of the job and determine the job number for the job. Enter:

```
pdls -f "job-name=jobname"
```

jobname is the actual name of the job. If the job exists, InfoPrint Manager returns information that is similar to this:

```
51  skye_289100001  jobname  held      1      skye-ld
```

Note: If you do not know the name of the job, you can enter the command:

```
pdls | more
```

If many jobs exist on the system, you can use the spacebar to advance through the list to locate a specific job. When you locate the job, make note of the number in the first column.

- Determine the document format of the job by entering the **pdls** command and specifying the job number. For example, if the job number is **51**, enter:

```
pdls 51
```

InfoPrint Manager returns information that is similar to this:

Job	ID	Name	Current State	Intervening Jobs	Destination Requested	Destinations Assigned
51	skye_289100001	jobname	held	1	skye-ld	

Document Number	Format	Document State	File Name
1	line-data		jobname

The **Format** field identifies the value of the **document-format** attribute.

- Determine the reason for the job state. Enter:

```
pdls -r job-state-reasons 51
```

InfoPrint Manager returns information that is similar to this:

```
skye_289100001: job-state-reasons = rip-failed
                                     job-hold-set
```

In this example, the value **rip-failed** indicates that InfoPrint Manager tried to do the conversion because the document format was a value other than **lcds** or **metacode**, which a Xerox job requires. For descriptions of any values returned for the **job-state-reasons** job attribute, see *InfoPrint Manager: Reference*, S544-5475.

Is the actual destination enabled?

The actual destination must be enabled and ready to accept jobs. You can issue this command to determine if the actual destination is enabled:

```
pdls -c destination adestname
```

If it is not enabled, you can issue this command to enable it:

```
pdenable -c destination adestname
```

Note: InfoPrint Manager sets the job state to **pending** for a job that you submit when the actual destination is disabled. You can issue these types of **pdls** commands to determine the job state:

```
pdls -f "job-name=jobname"
```

```
pdls jobnumber
```

Does the InfoPrint XT configurable transform object exist in the InfoPrint Manager server?

InfoPrint Manager does not automatically provide the InfoPrint XT configurable transform object. You must explicitly create the transform object during InfoPrint XT installation. See "Creating the InfoPrint XT configurable transform" on page 14.

Is the actual destination set up correctly for use with InfoPrint XT?

Values for the **document-formats-supported** actual destination attribute must include **lcds** and **metacode**. The **transform-sequence** attribute must include the **x2afp** value. You can enter this command to verify that the actual destination settings are correct:

```
pdls -c destination -r document-formats-supported,transform-sequence adestname
```

If the destination settings are correct, the command returns information that is similar to this:

```
adestname: document-formats-supported = ascii
                                         modca-p
                                         dbcs-ascii
                                         ditroff
                                         line-data
                                         gif
                                         jpeg
                                         pcl
                                         pdf
                                         postscript
                                         pjtf
                                         ppm1
                                         tiff
                                         lcds
                                         metacode
adestname: transform-sequence          = x2afp
```

If the actual destination settings are not correct, see "Using the `pdxtsetdest` command to update InfoPrint Manager actual destinations" on page 15.

Is the PATH environment variable set correctly?

The **PATH** environment variable must include the path to the InfoPrint XT executable software, and to the **local** subdirectory. Also, you must start the InfoPrint Manager server with this path in effect. You can enter the **echo** command from a Windows Command Prompt window to determine if the **PATH** environment variable includes the directories for the InfoPrint XT executable software:

```
echo %PATH%
```

If the **PATH** is correct, Windows displays information that is similar to this. The highlighted portion of the value applies to InfoPrint XT:

```
Path=C:\Program Files\IBM\InfoPrint XT\local;C:\Program Files\IBM\InfoPrint XT\bin;
C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\Program Files\IBM\Infoprint Manager\bin;
C:\Program Files\IBM\Infoprint Manager\jre\bin\classic;C:\Program Files\IBM\Infoprint Manager\npmweb;
```

Note: The C:\Program Files\IBM\InfoPrint XT portion of the path is the default directory in which the InfoPrint XT installation program installs files. Depending on the installation, you might have selected a different directory during installation.

If the **PATH** value does not include the InfoPrint XT executable and local directories, update the environment variable through standard Windows interfaces. See “Setting environment variables” on page 21.

Next, check the InfoPrint Manager error log to determine if InfoPrint Manager has access to the InfoPrint XT executable software. Use the InfoPrint Manager Management Console to see the server log, and check for messages that are similar to these:

```

| i 11/11/07 10:25:39 kwwadmin          Job 32 (KW7007_3934900000,xerox.img.xrxin) is created.
| i 11/11/07 10:25:39          Job xerox.img.xrxin (KW7007_3934900000) is scheduled to destination PRT01-ad.
i 11/11/07 10:25:39          PRT01-ad Starting the create request for job 32 in server KW7007.
i 11/11/07 10:25:39          PRT01-ad The server KW7007 received a ready for job signal request for the destination PRT01-ad.
i 11/11/07 10:25:39 kwwadmin          PRT01-ad Started processing job xerox.img.xrxin (3934900000)
i 11/11/07 10:25:39 kwwadmin          PRT01-ad Running transform x2afp.
X 11/11/07 10:25:41 kwwadmin          PRT01-ad 'pdxtx2afp' is not recognized as an internal or external command,
X 11/11/07 10:25:41 kwwadmin          PRT01-ad operable program, or batch file.
X 11/11/07 10:25:41 kwwadmin          PRT01-ad System function IPMXFORM returned error number 1.

```

The highlighted lines indicate that InfoPrint Manager could not access the InfoPrint XT executable software. Shut down the InfoPrint Manager server and restart it. You can stop and restart the server through the InfoPrint Manager Management Console.

Does the Windows system have adequate disk drive space and available memory?

Sufficient space and memory must be available for InfoPrint Manager to process the job. Check the disk space by clicking the **My Computer** icon. Right-click on a hard disk drive icon and then open the Properties notebook. Check memory usage by pressing **Ctrl+Alt+Delete** and then clicking **Task Manager**. The Performance tab displays memory and CPU statistics.

Problem determination: Processing jobs through Download for z/OS

Use this section for jobs that you submit from z/OS using Download for z/OS and that result in no printed output. If some type of printed output results, see “Problem determination: The job resulted in some type of printed output” on page 83.

Does submitting the job control language (JCL) on z/OS result in a return code of 0? Any return code other than 0 indicates that something is wrong with the JCL, or something is wrong elsewhere on z/OS. Diagnose the problem on the host system and resubmit the job.

Does the job remain on z/OS after you submit it?

Examine the **SDSF Output Queue Panel** on z/OS. If the job displays, it means that the job has remained on z/OS. Various conditions on z/OS can cause this. Check for these problems:

- Errors in the routing-control data set. See “Setting up Download for z/OS” on page 68. If you use **DEST** in the routing-control data set, it must have the same value as the **DEST** parameter in the JCL. **IPADDR** must be the same as the Internet Protocol (IP) address of the InfoPrint Manager system. **PORTNUM** must be the same as the port number that you specified for the InfoPrint Manager MVS Download receiver.

- The JCL does not select a z/OS printer. The JCL selects a printer based on parameters such as **DEST**, **CLASS**, and **FORMS**. See the **SDSF Printer Panel** on z/OS for a possible printer based on these parameters.
- You have not drained and restarted the z/OS printer after making changes to the routing-control data set. You must drain and restart the z/OS printer to pick up any changes you make.
- The z/OS printer is in a state other than **INACTIVE**. Examine the **SDSF Printer Panel** to check for this problem. To solve this type of problem, restart the printer. The status must be **INACTIVE**.

Does the SDSF Held Output Queue Panel contain an entry that indicates the problem?

This queue contains an entry that corresponds to the job that remained on z/OS. Review the entry to help determine the problem.

Does a problem with the InfoPrint Manager MVS Download receiver cause the job to remain on z/OS?

On the Windows system, an MVS Download receiver that is not running, or that started with incorrect parameter values can cause this problem. Use the InfoPrint Manager Management Console to determine the status of the MVS Download receiver. See “Creating InfoPrint Manager MVS Download receivers” on page 69.

Does the job have an entry in the InfoPrint Manager server error log?

When InfoPrint Manager receives a job, it writes an entry to its server error log, which you can access from the InfoPrint Manager Management Console. If this occurs, correct any error that the log indicates and resubmit the job. If the job still does not print, see “Problem determination: The job resulted in no printed output” on page 84.

Does the working directory of the InfoPrint Manager MVS Download receiver contain any .PRD or .JCL files for the job?

Check the **C:\Program Files\IBM\Infoprint Manager\var\pd\mvsd\Receiver *n*** directory for any files that are associated with the job. There might be files whose names are the job name and number, with the extension **.PRD** or **.JCL**. This can indicate that the receiver had a problem when it tried to run the **pdxtdownload** program. Check these items:

- Make sure that the path and the file name for the **pdxtdownload** program are specified correctly for the MVS Download receiver.
- Make sure that the **%PDXTINSTDIR%\bin\pdxtdownload.exe** file exists.

Are you using download directive -l none ?

The value of the **-l** download directive controls the creation of the receiver log. See “Using download directives” on page 74 and “Receiver log” on page 79. Do not use download directive **-l none** because this prevents InfoPrint XT from creating the receiver log. To set or change download directives, see “Enabling download directives” on page 78.

What is the return code for the job in the receiver log?

A non-zero return code indicates an error during job processing. A brief description of the error accompanies a non-zero return code. Correct the error and resubmit the job. If the return code is **0**, see “Problem determination: The job resulted in no printed output” on page 84.

Diagnostic and informational files that InfoPrint XT produces

If InfoPrint XT cannot process the job, only a header page and an error sheet might print in place of the job data. If errors exist in the output that InfoPrint XT produced, it also records information about the failure. To determine the exact cause of the problem, you can use the listing files that InfoPrint XT produces. In combined InfoPrint Manager and InfoPrint XT installations, InfoPrint XT creates these listing files in the %PDXTWORKDIR%\jobs*ServerName_JobIdentifier* subdirectory:

- **pdxtx2afp.log**
- **x2afp.lst**

Notes:

1. The error sheets that InfoPrint XT produces include the contents of the various listing files.
2. If you process the job with the **pdxtx2afp** command, InfoPrint XT writes the **pdxtx2afp.log** file in the %PDXTWORKDIR%\jobs*jobname-jobID-n* directory. The log file contains the **x2afp.lst** information.

pdxtx2afp.log file

This file contains sections that list the arguments, any transform directives, the commands that InfoPrint XT issued, and the return codes from those commands. It also includes the number of impressions (pages) of AFP output that InfoPrint XT produced. This is an example of the information in the **pdxtx2afp.log** file:

```
5016-501 2007-11-11 14:46:26 MDT (pid 621) - transform started
```

```
5016-503 Transform arguments (pdxtx2afp):
```

```
5016-504 -i "ow33607.xrxin"
5016-504 -o "afpout"
5016-504 -x "xjdl=xpfub1 xjde=b12 xrefcm=variable xcc=machine xaccount=no xclb=none"
5016-504 -g "ow33607"
5016-504 -t "-k1"
```

```
5016-505 Transform directives (pdxtx2afp -t):
```

```
5016-506 -k = "1"
```

```
5016-509 Command Sequence:
```

```
5016-510 1) x2afp xjdl=xpfub1 xjde=b12 xrefcm=variable xcc=machine xaccount=no xclb=none
'respath=C:\Program Files\IBM\Infoprint XT\var\pdxt\resources\ow33607'
'xfmtlib=C:\Program Files\IBM\Infoprint XT\var\pdxt\resources\ow33607\metrics;
C:\Program Files\IBM\Infoprint XT\resources'
'xcaobs=yes' 'xonepass=no' 'jobname=UNKNOWN-UNKNOWN-5' 'C:\jobs\ow33607\ow33607.xrxin' 2> x2afp.lst
```

```
5016-511 Return codes:
```

```
5016-512 1) 0 (pid -1)
```

```
5016-513 Impressions (pages): 28
```

```
5016-502 2007-11-11 14:46:27 MDT (rc 0) - transform ended
```

```
5016-521 x2afp.lst:
```

```
AIODSC207I Reading data stream conversion parameters.
```

```
AIODSC209I The data stream conversion parameters in effect are:
```

```
JDL=XPFUB1 JDE=B12 COPIES=1 LINECOUNT=72 NOSPC NOREPORT NOPLIDUMP NOACCOUNT CONVERT
PTXSIZE=(832K,832K) PTXMAXAREAS=10 PCCTYPE=IBM3211 NOFDEFOUT NOTRBLANKS NOOTEXT AFPRC=12
```

```
CLUSTRLIB=NONE XHONORFCB2=NO TWOPASS CAOBS MFDEF=F1AIOMFD XHONORSHIFT=NO XJES3211=YES
XPATTERN_SET=300-1 XAFPFUNCTION=IOCA_RT XRESOLUTION=300
XHONORSTAPLE=NO XSTAPLEORIENT=NO XSTAPLESYSGEN=1TON
```

Processing ended with return code 0.

The different sections of the **pdxtx2afp.log** file contain these types of information:

5016-503 Transform arguments (pdxtx2afp): 1

Lists the transform arguments that were in effect for the job. The name in parentheses indicates the component that supplied the arguments. The arguments were explicitly specified, or InfoPrint XT derived the arguments, or they are a combination of specified and derived arguments. It is possible to have several transform arguments sections. For example, the file might contain a section for arguments that were specified through the **PDXTX2AFP_ARGS** environment variable, and a section for arguments that were specified by the **pdxtx2afp** command:

```
5016-503 Transform arguments (PDXTX2AFP_ARGS):
5016-504 -x "xrptfile=."
```

```
5016-503 Transform arguments (pdxtx2afp):
5016-504 -x "xjdl=pdxtton xjde=strton xcc=a xrecfm=v xclb=none xafprc=4"
```

5016-505 Transform directives (pdxtx2afp -t): 2

Lists the transform directives that the **-t** command option specified. This section is only present if you used the command option.

If you specify transform directives with the **pdxtx2afp.directives** file or with the **PDXTX2AFP_DIRECTIVES** environment file, InfoPrint XT adds sections that show the directives that you specified through those methods.

5016-509 Command Sequence: 3

Lists the commands, in order, that InfoPrint XT issued when it processed the job.

5016-511 Return codes: 4

Lists the return codes from each of the commands that were identified in the **Command Sequence** section.

5016-513 Impressions (pages): 28 5

If InfoPrint XT generated AFP output for the job, this message lists the number of pages that InfoPrint XT produced.

5016-521 x2afp.lst: 6

If you processed the job using the **pdxtx2afp** command, the log file also contains information from the InfoPrint XT data stream converter. If you processed the job with the **pdpr** command in a combined InfoPrint Manager and InfoPrint XT installation, the log file does not contain the **x2afp.lst** information. However, if the job had errors, InfoPrint XT includes the list information from the data stream converter on the error sheet that prints with the job.

x2afp.lst file

The **x2afp.lst** file contains the results of the data stream conversion process. The contents of this file can help you determine what caused the failure. InfoPrint XT also creates this file when the conversion process is successful. This is an example of how the information from the **x2afp.lst** file prints on the error sheet:

```
5016-521 x2afp.lst
      AIOUT1002S Unrecognized option for the keyword: xrecfm=nv. Valid options for
      this keyword are:
```

variable
fixed
nfs
Processing ended with return code 16
General error 7 occurred (errno 0)

Service coordinator responsibilities

It is your responsibility to provide a service coordinator for InfoPrint XT. The service coordinator must be a knowledgeable Windows system support person. The service coordinator does these tasks:

- Screens all on-site problems before reporting them to make sure that the problem is not a result of an operator error. The coordinator uses the troubleshooting information in this publication to do diagnostic tasks and corrects any condition that the troubleshooting information addresses. The coordinator also makes sure that the problem is not a previously reported problem.
 - Establishes the severity for a reported problem using the severity definitions that the next topic lists.
 - Assists technical-support representatives in analyzing new problems.
 - Applies and verifies fixes that InfoPrint Solutions Company supplies. The service coordinator tests all fixes before releasing them to their production environment.
-

Determining problem severity

InfoPrint Solutions Company supplies fixes for all valid defects in InfoPrint XT. A technical-support representative and your service coordinator assign a severity to each valid defect using this criteria:

Severity 1

Function is inoperable.

Severity 2

Function is operable, but has severe restrictions.

Severity 3

Function is operable with minor impact, or a work-around is available.

Severity 4

Function is operable with little or no impact.

Placing a service call

To report a problem, call 1-800-IBM-SERV. Make sure that you have the customer number for your account available. The program identification (PID) for InfoPrint XT is **5799-RZA** and the component ID is **5799RZA00**.

Determining the version of InfoPrint XT

To determine the version of the InfoPrint XT software:

1. Click **Start→Control Panel→Add or Remove Programs**.
2. After the list of programs displays, select the entry for InfoPrint XT and then click the support information link.

Using the `pdxtcapture` command

After you place a service call, the technical-support representative might ask you to capture information from the InfoPrint XT system. InfoPrint XT provides the `pdxtcapture` command that you can use to make an image of the working directory for a job or an image of a resource directory. This image is a compressed tar file that the technical-support representative can use as an aid in problem determination. The syntax for the `pdxtcapture` command is:

```
pdxtcapture [-o Outfile] { [-j ServerName_JobIdentifier ...] [-r] | -g [Resgrp ...] }
```

```
[-j [ServerName_JobIdentifier ...]
```

Specifies one or more job identifiers for jobs whose working directories you want to capture. If you specify the `-j` option, but do not specify a job identifier, InfoPrint XT captures the working directory for the last job that it converted. You cannot specify the `-j` option if you specify the `-g` option.

```
[-g [Resgrp ...] Specifies one or more resource groups whose resource directories you want to capture. The default resource group directories are subdirectories of %PDXTWORKDIR%\resources. If you do not specify the -g option, InfoPrint XT captures the resources in the common resource group. You cannot specify the -g option if you specify the -j option.
```

```
[-o Outfile] Specifies the name of the file to which InfoPrint XT writes the output from the pdxtcapture command. If you do not specify this option, InfoPrint XT writes job information to the pdxtcapt.job file, and resource information to the pdxtcapt.res file. It stores these files in the directory from which you entered the command.
```

```
[-r] When you specify the -j option to capture the working directory for a job, you can also include the -r option. This causes InfoPrint XT to include the resources for the job in the capture output.
```

Notes:

1. You cannot use the `pdxtcapture` command to capture information for jobs that you convert with the `pdxtx2afp` command. You must process jobs with InfoPrint Manager to use the `pdxtcapture` command.
2. For a brief overview about using the `pdxtcapture` command, see the `pdxtcapture` man page that InfoPrint XT provides.
3. Include an InfoPrint Manager job retention period for a job whose working directory you want to capture. This prevents InfoPrint XT from discarding the working directory for the job during the capture process.

Using the `pdxtclnwork` command to clean work directories

InfoPrint XT removes the job directories that it creates after the jobs print and when new jobs arrive on the system. If a failure occurs that prevents InfoPrint XT from removing the directories, use the `pdxtclnwork` command. This command manually removes job directories from the system. Use this command only at the direction of a technical-support representative. The technical-support representative will assist you with running the command.

Appendix A. Conversion parameters for converting Xerox jobs

Conversion parameters control how InfoPrint XT for Windows (InfoPrint XT) converts the Xerox data stream to the Advanced Function Presentation (AFP) data stream. The conversion parameters are the same, whether the Xerox job is the Line Conditioned Data Stream (LCDS) or the metacode data stream. How you specify the conversion parameters depends on whether you use InfoPrint Manager for Windows (InfoPrint Manager) with InfoPrint XT.

If you have InfoPrint Manager installed, you can use the **other-transform-options** attribute to pass Xerox-specific conversion parameters and values to InfoPrint XT. When you specify the attribute with the InfoPrint Manager **pdpr** command, use this format:

```
-x "other-transform-options='parm=value parm=value parm=value'"
```

If you do not have InfoPrint Manager installed, use the **pdxtx2afp** command to convert Xerox jobs. Include the **-x** command option to specify the conversion parameters. For more information about the **-x** option, see page 62.

This list describes the conversion parameters for Xerox jobs:

[**xaccount=yes** | **no**]

Specifies whether InfoPrint XT prints a Xerox-style accounting page for the job. The default is that InfoPrint XT prints the accounting page.

Note: There can be occasions when you request the accounting page, but no accounting page prints with the job. If the job does not produce an accounting page on a Xerox printer, InfoPrint XT does not produce an accounting page regardless of the presence of this parameter.

[**xafpfunction=ioca_rt** | **no_ioca_rt**]

Specifies whether the printer supports the IOCA replicate-and-trim function. InfoPrint XT uses this function for the shading patterns in data streams and forms. The default is that InfoPrint XT assumes the printer supports the IOCA replicate-and-trim function.

Notes:

1. If one or more of your printers do not support the IOCA replicate-and-trim function, specify **no_ioca_rt** for the **xafpfunction** parameter.
2. The value of this attribute affects how InfoPrint XT processes jobs that contain FILE DJDE commands.

[**xafprc=12** | **0** through **16**]

Specifies the largest return code that lets InfoPrint XT generate AFP output. If you do not specify this parameter, the default is **12**. InfoPrint XT does not generate any AFP when the return code is greater than the value of this parameter.

[**xalign=0** | *scan_value* | *dot_value*]

Controls how InfoPrint XT aligns the AFP output with the pages of the job. The value range for *scan_value* is **-100** through **300** pels. The value range for *dot_value* is **-300** through **1500** pels. Separate the scan value and the dot value with a colon (:). Scan and dot values have these effects:

- A positive scan value moves the page image to the right in the portrait orientation, or down in the landscape orientation.
- A negative scan value moves the page image to the left in the portrait orientation, or up in the landscape orientation.
- A positive dot value moves the page image up in the portrait orientation, or to the right in the landscape orientation.
- A negative dot value moves the page image down in the portrait orientation, or to the left in the landscape orientation.

If you do not specify the **xalign** conversion parameter, the default is **0** for both the scan value and the dot value. If you specify the **xalign** conversion parameter but omit either the scan value or the dot value, InfoPrint XT uses a default of **0** for the omitted value.

Notes:

1. InfoPrint XT only supports values for the Xerox scan and dot directions in 300 dots-per-inch (dpi) resolution. It does not support values in 600 dpi resolution.
2. InfoPrint XT does not support the TEST parameter of the Xerox ALIGN command.
3. See the **xhonorinvert** conversion parameter on page 96 and the **xinvertalign** conversion parameter on page 97. These parameters affect how InfoPrint XT aligns inverted output.

[xcc=ansi | machine]

Specifies the type of carriage controls, if any, that are present in the original Xerox data. The **xcc** conversion parameter only applies to online jobs. For offline jobs, InfoPrint XT uses the carriage control definitions from the Job Descriptor Library (JDL). InfoPrint XT ignores this parameter for offline jobs:

xcc=ansi

Specifies American National Standards Institute (ANSI) carriage controls. This is the default.

xcc=machine

Specifies machine carriage controls.

Notes:

1. If you manually specify the type of carriage control in the job control language (JCL) for a z/OS job, such as with the **DCB=RECFM** parameter, make sure that the type you specify matches what the data actually contains. If you specify a type that is different from the carriage controls in the data, z/OS can discard data before it sends the job to InfoPrint XT.
2. If you use Download for z/OS to send jobs to InfoPrint XT and the jobs contain both ANSI and machine code carriage controls, you can use the **-p** download directive. With the directive, InfoPrint XT can convert ANSI carriage controls to machine code carriage controls so that the job contains only the one type. Then, use a value **machine** for the **xcc** conversion parameter. For more information, see "Using download directives" on page 74.
3. You cannot use the **-p** download directive for online jobs that you transfer from z/OS through methods other than Download for z/OS. If the jobs include the **xpcctest** conversion parameter with its default value of **yes**, InfoPrint XT reads the first records of the job to verify the type of carriage controls the job contains. If it determines that the carriage controls are different from the type the **xcc** parameter specifies,

it passes the type of carriage control it determined to its online (jes3211) carriage-control processing component. This can cause the AFP output that InfoPrint XT generates to be wrong. For more information, see page 99.

[xckdupnlim= yes | no]

Specifies whether InfoPrint XT checks inline images to prevent duplicate image processing when it converts online jobs. When you specify **xckdupnlim=yes**, InfoPrint XT can reduce its execution time for jobs that contain many duplicate inline images. The default is **xckdupnlim=no**.

Notes:

1. This conversion parameter only applies to inline images that GRAPHIC DJDEs specify. It does not apply to inline images that IMAGE DJDEs specify.
2. **xckdupnlim** does not apply to offline jobs.

[xclb=clustr | clusterlib_name | none]

Specifies the name of the cluster library in use, or specifies that no cluster library is in use. If you do not specify this parameter, the default is **clustr** for the cluster library name.

Notes:

1. If the job uses stocksets and you print the job on a continuous-forms printer, specify **xclb=none**. This causes InfoPrint XT to ignore stock references. Specifying a paper drawer has no meaning when the job prints on a continuous-forms printer.
2. The **clustr.lib** file can specify both a preferred tray and a current tray for a specific cluster name. If a cluster name specifies both a preferred tray and a current tray, InfoPrint XT uses the value for the current tray. This matches the operation of a Xerox printer.

[xcmt2nop=yes | no]

Specifies whether InfoPrint XT generates No Operation (NOP) structured fields for the text of C DJDEs in the job. If you specify **xcmt2nop=yes**, InfoPrint XT includes all C DJDE text for a Xerox input page in the corresponding page of the AFP output. The default is **xcmt2nop=no**. See the information about the **XRXC DJDE** keyword in “Working with InfoPrint XT AFP structured fields” on page 31.

Note: The C DJDE is record-oriented and takes effect on the next record that follows the next END; DJDE packet terminator. If a C DJDE occurs in a packet that contains one or more page-oriented DJDEs, InfoPrint XT associates the AFP NOP that it creates from the C DJDE with the page on which the DJDE occurs. It does not associate the AFP NOP with the page on which the page-oriented DJDEs in the packet take effect.

[xconvert=yes | no]

Specifies whether InfoPrint XT converts the job and produces AFP output. If you specify **xconvert=no**, InfoPrint XT lists the resources that the job requires. The default is that InfoPrint XT converts the job.

[xcopies=nnnnn]

Specifies the starting value for the number of copies. *nnnnn* is an integer from 1 through 32767. This parameter provides compatibility with the Xerox START command. If you specify this parameter and value, it overrides the number of copies for each file as requested by the Job

Descriptor Entry (JDE) or Dynamic Job Descriptor Entry (DJDE) COPIES option. If you do not specify this parameter, either the DJDE in the data stream or in the active JDE determines the number of copies.

[xcsmmname=yes | no]

Specifies how InfoPrint XT derives the medium map names that it uses in the inline form definition for a job. The default is that InfoPrint XT uses sequentially numbered names that are not related to the contents of the medium maps. The default numbering begins with **AIO00001**. If you specify **yes** as the value of this conversion parameter, InfoPrint XT creates medium map names in a format that describes the contents of the medium map. For information about the format that InfoPrint XT uses for content-sensitive medium map names, see “Working with content-sensitive medium map names” on page 34.

[xhonorfcb2=yes | no]

Specifies whether InfoPrint XT honors Forms Control Buffers (FCBs) specified by the JDL or JDLs for the job. If you specify **xhonorfcb2=yes** and the JDL specifies FCB=PROCESS, InfoPrint XT processes FCBs that it finds in the job data stream. If the JDL specifies FCB=IGNORE, InfoPrint XT ignores the FCBs. If you specify **xhonorfcb2=no**, or if you omit this parameter, InfoPrint XT does not process FCBs, regardless of whether the JDL specifies FCB=PROCESS or FCB=IGNORE.

[xhonorinvert=yes | no]

Specifies whether InfoPrint XT honors INVERT commands that JDLs or DJDEs for the job specify. If you specify **xhonorinvert=yes**, InfoPrint XT processes INVERT commands that it finds in the job data stream. If you specify **xhonorinvert=no**, InfoPrint XT does not process INVERT commands. If you do not specify this parameter, the default is **no**.

Note: See the **xalign** conversion parameter on page 93 and the **xinvertalign** conversion parameter on page 97. If you specify **xhonorinvert=no** or **xinvertalign=no**, InfoPrint XT aligns all output pages in the same direction.

[xhonorshift=yes | no]

Specifies whether InfoPrint XT honors SHIFT and XSHIFT commands that JDLs or DJDEs for the job specify. If you specify **xhonorshift=yes**, InfoPrint XT processes SHIFT and XSHIFT commands that it finds in the job data stream. If you specify **xhonorshift=no**, InfoPrint XT does not process SHIFT or XSHIFT commands. If you do not specify this parameter, the default is **no**. Restrictions apply when you use **xhonorshift=yes**. See page 6.

[xhonorstaple=yes | no]

Specifies whether InfoPrint XT honors FACEUP, NTO1, and STAPLE commands, which are subparameters of the OUTPUT PDL command. These commands control how the printer hardware staples the reports in the job. The default is that InfoPrint XT ignores stapling commands. See the descriptions of **xstaplemax**, **xstapleorient**, and **xstaplesysgen** on page 102. For information about stapling restrictions, see page 7.

[xinlr=all:cs:cp:cf:pseg:ovly:inlr]

Specifies the printable AFP resources that InfoPrint XT embeds inline in the AFP data stream for the job. You can specify one or more values. If you specify more than one value, separate the values with colons (:). Do not include any spaces. Valid values are:

- all** InfoPrint XT embeds all AFP character sets, code pages, coded fonts, overlays, and page segments that the job requires in the AFP data stream. Specifying **xinlr=all** is the same as specifying **xinlr=cs:cp:cf:ovly:pseg**.
- cs** InfoPrint XT embeds all AFP character sets that the job requires in the AFP data stream.
- cp** InfoPrint XT embeds all AFP code pages that the job requires in the AFP data stream.
- cf** InfoPrint XT embeds all AFP coded fonts that the job requires in the AFP data stream.
- pseg** InfoPrint XT embeds all AFP page segments that the job requires in the AFP data stream.
- ovly** InfoPrint XT embeds all AFP overlays that the job requires in the AFP data stream.
- inlr** InfoPrint XT embeds the resources that it loaded from the Xerox job, as directed by the FILE DJDE commands that the job contains. This includes both permanent and temporary resources, as defined by the storage parameter.

The default is that InfoPrint XT only embeds temporary resources that it loaded through FILE DJDE commands with the **D** storage parameter.

[xinvertalign=no | yes]

Controls how InfoPrint XT aligns the AFP output with pages that are inverted by the Xerox OUTPUT INVERT command or INVERT DJDE. **xhonorinvert=yes** must be set for the job.

If you specify **xinvertalign=yes**, scan and dot values that you specify with the **xalign** conversion parameter align output on the inverted pages in the opposite direction as the alignment of non-inverted pages. For example, if you specify **xalign=0:-56** for a job that is in the landscape orientation, non-inverted pages are aligned 56 dots to the left, and inverted pages are aligned 56 dots to the right.

If you specify **xinvertalign=no** or omit the **xinvertalign** conversion parameter, InfoPrint XT aligns all output pages in the same direction. This is also true if you specify **xhonorinvert=no**.

Note: See the **xhonorinvert** conversion parameter on page 96 and the **xinvertalign** conversion parameter on page 97.

[xjde=dflt | jde_name]

Specifies the name of the Xerox JDE that the operator starts on the Xerox printer before the job prints. If you do not specify this parameter, the default is **dflt**.

[xjdl=dfault | jdl_name]

Specifies the Xerox JDL that contains the starting JDE. If you do not specify this parameter, the default is **dfault**.

[xlinecount=n]

Specifies the maximum number of lines per page for jobs that have no explicit page breaks, as defined through the Job Entry Subsystem (JES) line spacing parameter.

[**xlrecl=80** | *nnnnn*]

Specifies the record length of the records in the job. If you specify a corresponding **xrcfm=fixed** parameter, the valid range is 1 through 32760. If you specify **xrcfm=variable**, the valid range is 1 through 32756. If you do not specify this parameter, the default is 80.

[**xmicrfont=none** | **all** | **xerox** | **xerox+font1;font2;font3** | **xerox-font1;font2;font3** | *font1;font2;font3*]

Specifies whether InfoPrint XT generates AFP magnetic ink character recognition (MICR) fonts when it loads Xerox fonts that FILE DJDEs identify. You can use one of these values:

none InfoPrint XT does not generate AFP MICR fonts for any of the Xerox fonts that it loads from FILE DJDE commands. This is the default.

all InfoPrint XT generates AFP MICR fonts for all the Xerox fonts that it loads from FILE DJDE commands in the job.

xerox InfoPrint XT generates AFP MICR fonts for all Xerox fonts whose names begin with these standard prefixes for MICR font names:

- **E13B**
- **E14B**
- **CMC7**

For example, InfoPrint XT generates AFP MICR fonts for these Xerox fonts: **E13BPX.FNT**, **E14BL.FNT**, **CMC7J.FNT**.

xerox+font1;font2;font3

InfoPrint XT generates AFP MICR fonts for all Xerox fonts whose names begin with **E13B**, **E14B**, or **CMC7**. In addition, it generates AFP MICR fonts for up to three fonts that you specify by name. Separate the font names with colons (:). The fonts you specify can be any Xerox fonts.

xerox-font1;font2;font3

InfoPrint XT generates AFP MICR fonts for all Xerox fonts whose names begin with **E13B**, **E14B**, or **CMC7** except for the fonts you specify after the minus sign (-). You can specify up to three Xerox fonts that begin with the standard prefixes for MICR font names. Separate the font names with colons.

font1;font2;font3

InfoPrint XT generates AFP MICR fonts for the Xerox fonts you specify. You can specify up to three fonts. Separate the font names with colons. The fonts you specify can be any Xerox fonts.

InfoPrint XT does not generate AFP MICR fonts for any Xerox fonts that begin with the standard prefixes for MICR font names unless you specify them in the list of fonts.

Note: To name more than three fonts, you can specify more than one **xmicrfont** conversion parameter, up to 11 occurrences that specify a combined total of 33 fonts. Values for all occurrences of the conversion parameter must be of the same type, either **xerox+**, **xerox-**, or user-specified names.

[**xpaper=letter** | **ledger** | **folio** | **A3** | **A4** | **A4LT** | **B4**]

Specifies the paper size for jobs that specify inline forms through FILE

DJDEs. Use this parameter only if the inline forms do not specify a paper size internally, or if the JDL and JDEs for the job do not specify a paper size.

Notes:

1. **A4LT** is a custom paper size that is 8.5 inches by 11.69 inches, or 216 mm by 297 mm.
2. The value of this attribute affects how InfoPrint XT processes jobs that contain FILE DJDE commands.

[xpattern_set=300-1 | 300-2]

Specifies the type of shading patterns that InfoPrint XT uses when it processes Xerox FORMS\$, FORMSX, and ISISPX fonts during metacode data-stream conversion. **300-1** specifies the shading patterns that Xerox 97xx, 4x50, and 4x90 printers use. This is the default. **300-2** specifies the patterns that Xerox 4x35 printers use.

Note: The value of this attribute affects how InfoPrint XT processes jobs that contain FILE DJDE commands.

[xpcctest=yes | no]

Specifies whether InfoPrint XT automatically tests the online Xerox data stream to verify whether the carriage controls are ANSI or machine code. InfoPrint XT passes the type of carriage control to its online (jes3211) carriage-control processing component. It first looks at the value of the **xcc** conversion parameter. Then, if the value of the **xpcctest** conversion parameter is **yes**, it reads the first records of the job to further verify the type of carriage controls. If InfoPrint XT determines that the carriage controls are different, it ignores the value of the **xcc** conversion parameter and passes the carriage control type that it found to jes3211. **xpcctest=yes** is the default.

The **xpcctest** parameter is useful for installations that have Xerox jobs that contain both ANSI and machine carriage controls but that do not use Download for z/OS to transfer online jobs to InfoPrint XT. For example, a multi-step job on z/OS might have an initial step that consists of banner pages with ANSI carriage controls. The subsequent steps that contain the actual data for the job have machine code carriage controls. For installations that use Download for z/OS, InfoPrint XT provides the **-p** download directive. By using the **-p** download directive, InfoPrint XT can convert the ANSI carriage controls for the banner pages so that all the carriage controls in the job are machine code. Then, you can specify **xcc=machine**. As directed by the default value of **xpcctest=yes**, InfoPrint XT reads the first few records that have the converted ANSI carriage controls. Because all carriage controls are now machine code, it passes a carriage control type of machine to jes3211.

If the installation does not use Download for z/OS and the Xerox data streams contain a mixture of ANSI and machine code carriage controls, you cannot use the **-p** download directive to convert carriage controls. The **xcc** conversion parameter should specify the type of carriage controls for the job data. Using the job described in the previous example, the **xcc** parameter should have a value of **machine**. However, when InfoPrint XT reads the first records of the job as directed by **xpcctest=yes**, it finds the ANSI carriage controls in the banner pages. It then ignores the value of the **xcc** parameter and passes a value of ANSI to jes3211. The AFP output that InfoPrint XT generates is not correct. In this case, you can use **xpcctest=no**.

This prevents InfoPrint XT from verifying the carriage controls in the first few records of the job and it passes the value of the `xcc` parameter to `jes3211`.

[xrecfm= fixed | variable]

Specifies the record format of the records in the job. For fixed length records, as specified by `xrecfm=fixed`, the `xlrecl` parameter specifies the length of the record. This is the default. `xrecfm=variable` specifies that the records are variable length, with a 2-byte length field at the beginning of each record. The record length does not include the 2-byte length field itself.

[xrptfile=. | path\file]

Specifies the path and file in which InfoPrint XT writes a report of all DJDEs found in the job. Specifying `xrptfile=.` causes InfoPrint XT to write the report to the `x2afp.djde` file in the working directory for the job. The default working directory for the job is either `%PDXTWORKDIR%\jobs\ServerName_JobIdentifier` or `%PDXTWORKDIR%\jobs\jobname-jobID-n`. If you do not specify this parameter, InfoPrint XT does not generate a DJDE report.

Note: If you specify a path, make sure that it is the full path. You cannot use a relative path with the `xrptfile` parameter.

[xshading=xerox | grayscale | [lp]:[mp]:[hp]]

Controls how InfoPrint XT interprets Xerox shading when it converts the Xerox data stream and any inline FRMs that FILE DJDEs specify. Valid values are:

xerox InfoPrint XT emulates Xerox shading and produces raster dot patterns in the AFP that it generates. This is the default.

grayscale

InfoPrint XT uses Logical Page and Object Area Coloring to substitute grayscale for the standard shading characters in FRMs. It uses default percentages of grayscale coverage for the levels of Xerox shading:

LIGHT

Five percent (5%) coverage.

MEDIUM

Ten percent (10%) coverage.

HEAVY

Fifteen percent (15%) coverage.

[lp]:[mp]:[hp]

InfoPrint XT substitutes grayscale for the Xerox shading and uses the coverage percentages you specify. For each position in the value, you can specify an integer from **0** through **100**:

lp The coverage percentage that InfoPrint XT uses for LIGHT shading.

mp The coverage percentage that InfoPrint XT uses for MEDIUM shading.

hp The coverage percentage that InfoPrint XT uses for HEAVY shading.

Do not include the brackets in the value; the brackets indicate each position in the value is optional. Include the colons (:) between the positions of the value. If you omit any position, InfoPrint XT uses the default percentage for LIGHT, MEDIUM, or HEAVY. These are examples of values you can specify:

xshading=:8:16

InfoPrint XT uses 5% coverage for LIGHT shading, 8% for MEDIUM, and 16% for HEAVY.

xshading=3

InfoPrint XT uses 3% coverage for LIGHT shading, 10% for MEDIUM, and 15% for HEAVY.

xshading=:11

InfoPrint XT uses 5% coverage for LIGHT shading, 11% for MEDIUM, and 15% for HEAVY.

xshading=:14

InfoPrint XT uses 5% coverage for LIGHT shading, 10% for MEDIUM, and 14% for HEAVY.

xshading=4:9:12

InfoPrint XT uses 4% coverage for LIGHT shading, 9% for MEDIUM, and 12% for HEAVY.

Restrictions apply when you use the **xshading** conversion parameter. See page 4.

[xspacing=none | word | char]

Specifies adjustments that InfoPrint XT makes to the spacing to match the original Xerox output as closely as possible:

xspacing=none

Specifies no spacing adjustment. This is the default.

xspacing=word

Specifies spacing adjustments between words only.

xspacing=char

Specifies spacing adjustments between words and characters.

Notes:

1. Use of word adjustments or character adjustments affects InfoPrint XT performance and results in larger AFP files.
2. The value of this attribute affects how InfoPrint XT processes jobs that contain FILE DJDE commands.

[xspcrmi=yes | no]

Controls how InfoPrint XT interprets spacing characters in Xerox fonts during job processing for fonts that FILE DJDEs specify:

no

InfoPrint XT interprets spacing characters in the font as Presentation Text Object Content Architecture (PTOCA) text-string characters. This is the default.

yes

InfoPrint XT interprets spacing characters in the font as Relative Move Inline (RMI) structured fields.

Restrictions apply when you use the **xspcrmi** conversion parameter. See page 6.

Note: The **xspcrmi** conversion parameter does not control how InfoPrint XT interprets spacing characters in Xerox fonts that you have previously loaded with the **pdxloadres** command. If you specify **xspcrmi=yes** and the job does not contain FILE DJDE commands, InfoPrint XT does not generate RMI structured fields for any of the fonts the job uses. In this case, reload the fonts that the job requires with the **pdxloadres** command and use the **-b** option.

[xstaplemax=*n*]

Specifies the maximum number of sheets that accumulate before a staple action occurs. You can specify a value from **1** through **32767**. This matches the values that Xerox printers support. However, Xerox printers do not staple more than 102 sheets at a time. InfoPrint XT issues a warning message for each sheet, over 102 sheets, that accumulates for a single stapling action.

Notes:

1. The printer model that you are using determines the number of sheets that you can staple at one time. For detailed information, see the documentation for the printer.
2. If you do not specify the **xstaplemax** conversion parameter, InfoPrint XT honors the NTO1 limits that the JDEs for the job specify.

[xstapleorient=yes | no]

Specifies whether InfoPrint XT honors the orientation of the first page of a report when it determines the corner in which to staple. The default is that InfoPrint XT always staples in the upper left corner of the pages, as you look at them in the portrait orientation. If you specify **xstapleorient=yes**, InfoPrint XT detects reports whose first pages are in the landscape orientation. It staples these in the lower-left portrait corner. This corresponds to the upper-left landscape corner.

[xstaplesysgen=nto1 | 1ton]

Specifies whether the default printing order that was specified to the Xerox printer at SYSGEN time was 1TON or NTO1. This determines whether the Xerox printer delivers the printed output starting with the first page of the job or with the last. If you use the default **xstaplesysgen** value of **1ton**, the starting JDL and JDE pair for the job must include:

- STAPLE=YES
- NTO1=YES or NTO1=*n*
- FACEUP=YES

If these values are present in the starting JDL and JDE pair, InfoPrint XT includes stapling commands in the AFP output that it generates. If the values are not present, no stapling occurs. This is true even if subsequent JDL and JDE pairs in the job specify stapling.

If you specify **xstaplesysgen=nto1** and subsequent JDL and JDE pairs in the job specify stapling, InfoPrint XT includes stapling commands in the AFP regardless of whether the starting JDL and JDE pair specifies stapling.

[xtrblanks= no | yes]

Specifies whether InfoPrint XT removes the trailing blanks on each line of the input data stream. If you do not specify this parameter, InfoPrint XT does not remove the trailing blanks.

[xzctrace=yes | no]

Captures trace information that a technical support representative can use

for problem analysis. If you do not specify this parameter, InfoPrint XT does not capture trace information. Use this parameter only at the direction of a technical support representative.

[xzdump=yes | no]

Captures trace information that a technical support representative can use for problem analysis. If you do not specify this parameter, InfoPrint XT does not capture trace information. Use this parameter only at the direction of a technical support representative.

[xztrace=all1 | all2 | all1:all2]

Captures trace information that a technical support representative can use for problem analysis. If you do not specify this parameter, InfoPrint XT does not capture trace information. Use this parameter only at the direction of a technical support representative.

Appendix B. InfoPrint XT messages: 5016-*nnn*

This section lists the 5016 series of messages that InfoPrint XT for Windows (InfoPrint XT) can issue. Depending on the message, the message might include an additional error return code. See "Return code numbers" on page 113 for explanations of these numbers.

5016-001 **The command option *-option* is not valid.**

Explanation: You entered a command and included an option that is not valid. The message text identifies the option.

System action: InfoPrint XT cannot process the command.

User response: Review the syntax for the command and enter the command again.

5016-002 **An error occurred while processing command option *-option*. The value for the option is missing.**

Explanation: You entered a command with an option that requires a value. The value for the option was missing. The message text identifies the option that requires a value.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a value for the option.

5016-003 **The command did not expect the value "*value*".**

Explanation: You entered a command and included an option or other argument that is not valid. The message text identifies the unexpected value.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a valid value.

5016-004 **Command options *-option* and *-option* are mutually exclusive.**

Explanation: You entered a command and included two options that the command cannot process together.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify only one of the options.

5016-005 **Value "*value*" is not valid for command option *-option*.**

Explanation: You entered a command and included a value for an option that is not one of the allowed values. Or, the value is not in the correct format. For example, you entered an alphanumeric value instead of a numeric value. The message text identifies the incorrect value and the name of the option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax and enter the command again.

5016-006 **There are too many instances of the *-option* command option. You may specify up to *number* instances.**

Explanation: You entered a command and included more than one instance of a command option. You specified the command option more times than InfoPrint XT allows. The message text indicates the maximum number of times that you can specify the option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax and enter the command again.

5016-007 **One or more required parameters are missing.**

Explanation: You entered a command that has required parameters. You did not specify one or more of the required parameters.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax and enter the command again.

5016-008 **An error occurred while parsing *variable* (error *ReturnCode*). ...*msg***

Explanation: You entered a command that reads an environment variable to obtain default command options. An error occurred when InfoPrint XT tried to

parse the value of that environment variable. The most likely cause is a problem with the content of the variable. For example, it might require quotation marks because the command contains special characters, or the command might contain an unbalanced set of quotation marks.

System action: InfoPrint XT cannot process the request.

User response: Correct the value of the environment variable and enter the command again.

5016-010 One or more required command options are missing.

Explanation: You entered a command that has required command options. You did not specify one or more of the required command options.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax and enter the command again.

5016-013 Value "value" is too long for command option -option.

Explanation: You issued a command and included a value for an option that is too long.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax and enter the command again.

5016-017 Specify a man page name.

Explanation: You entered the `pdxtman` command, but you did not specify a man page name. You must specify a man page name to see further information.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a man page name.

5016-051 An error occurred while processing directive -directive. The value for the directive is missing.

Explanation: You entered a command with a directive that requires a value. The value for the directive was missing.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a value for the directive.

5016-052 Value "value" is not valid for directive -directive.

Explanation: You entered a command with a directive that was not in the correct format. For example, the directive specified an alphanumeric value instead of a numeric value.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a valid value for the directive.

5016-053 The value for directive -directive is too long.

Explanation: You entered a command with a directive value that was longer than the allowed length.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a valid value for the directive.

5016-054 An error occurred while parsing a directive (error Return Code). ...msg

Explanation: You entered a command with a directive value that InfoPrint XT cannot parse. The most likely cause is a problem with the content of the directive. For example, it might contain an unbalanced set of quotation marks.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a valid value for the directive.

5016-100 The resource *resourcename* is already loaded. Use the -r command option to replace it.

Explanation: You entered the `pdxtloadres` command to load the resource specified in the message. That resource is already loaded on the system. If this is a new version of the resource and you want to load it again, you must specify the `-r` option.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify the `-r` option.

5016-102 The input list file did not contain any valid resources.

Explanation: You entered the `pdxtloadres` command and included the `-l` option, which specified a file that contains a list of resources. The entries in the file might not be in a valid format. Each entry in the file must be

on a separate line. Or, the resources might not exist in the path explicitly specified in the file. You must specify a full path or a relative path in the file. InfoPrint XT also issues this message if the file is empty.

System action: InfoPrint XT cannot process the request.

User response: Correct the problem with the input list file and enter the command again.

5016-103 The input pattern-matching string used for the search did not match any valid resources.

Explanation: You entered the **pdxloadres** command and included the **-n** option, which specified a pattern-matching string to use to locate specific Xerox resources. InfoPrint XT did not locate any valid resources when it used the pattern-matching string.

System action: InfoPrint XT cannot process the request.

User response: Correct the problem with the pattern-matching string and enter the command again.

5016-104 Command option *-option* cannot be used when you delete resources.

Explanation: You entered the **pdxloadres** command and included the **-f delete** option, which is a request to delete resources. You also included another option that does not apply when you delete resources.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax and enter the command again.

5016-122 The command did not expect the value "value".

Explanation: InfoPrint Manager issued the **pdxtx2afp** command and included an option or other argument that is not valid. The attributes of the **x2afp** configurable transform might not be correct.

System action: InfoPrint XT cannot process the request.

System action: Enter the **pdxtrtform** command to reconfigure the **x2afp** configurable transform.

5016-200 Unable to access *fileordirectory* (error *ReturnCode*). ...msg

Explanation: The file or directory identified in the message is not accessible. It might not exist or it might not have the permissions that are required to provide access. The message provides additional information about why the access action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified file or directory and correct the problem. Then, enter the command again.

5016-201 An error occurred while opening file *filename* (error *ReturnCode*). ...msg

Explanation: InfoPrint XT cannot open the file identified in the message. The message provides additional information about why the open action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified file, or the directory that contains the file, and correct the problem. Then, enter the command that resulted in this error message.

5016-202 An error occurred while reading file *filename* (error *ReturnCode*). ...msg

Explanation: InfoPrint XT cannot read the file identified in the message. The message provides additional information about why the read action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified file and correct the problem. Then, enter the command again.

5016-203 An error occurred while writing file *filename* (error *ReturnCode*). ...msg

Explanation: InfoPrint XT cannot write to the file identified in the message. The message provides additional information about why the write action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified file or use the additional information that the message specifies, and correct the problem. Then, enter the command again.

5016-204 File *file* does not exist.

Explanation: The file identified in the message does not exist.

System action: InfoPrint XT cannot process the request.

User response: Enter the command again and specify a valid file name.

5016-205 File *file* is empty.

Explanation: The file identified in the message exists, but it does not contain any data.

System action: InfoPrint XT cannot process the request.

User response: Correct the problem with the file and enter the command again.

5016-209 An error occurred while locking file *filename* (error *ReturnCode*). ...*msg*

Explanation: You entered a command, but InfoPrint XT cannot lock the file identified in the message. The message provides additional information about why the file-lock action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the file identified in the message and correct the problem. Then, enter the command again.

5016-210 An error occurred while reading from *fdn* (error *ReturnCode*). ...*msg*

Explanation: InfoPrint XT cannot read from the file descriptor identified in the message. The message provides additional information about why the read action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5016-211 An error occurred while writing to *fdn* (error *ReturnCode*). ...*msg*

Explanation: InfoPrint XT cannot write to the file descriptor identified in the message. The message provides additional information about why the write action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5016-220 AFP record *recordnumber* (offset *offset*) is not valid. The structured field introducer is not complete.

Explanation: InfoPrint XT cannot read the AFP data stream. The introducer portion of a structured field is not complete.

System action: InfoPrint XT cannot process the request.

User response: Correct the AFP data stream. Then, enter the command again. If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-221 AFP record *recordnumber* (offset *offset*) is not valid. The structured field data is not complete.

Explanation: InfoPrint XT cannot read the AFP data stream. Not enough data exists to satisfy the length specified in the structured field introducer.

System action: InfoPrint XT cannot process the request.

User response: Correct the AFP data stream. Then, enter the command again. If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-222 AFP record *recordnumber* (offset *offset*) is not valid. The carriage control is 0xnm, not 0x5A.

Explanation: InfoPrint XT cannot read the AFP data stream. The carriage control is not correct.

System action: InfoPrint XT cannot process the request.

User response: Correct the AFP data stream. Then, enter the command again. If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-230 An error occurred while creating directory *directoryname* (error *ReturnCode*). ...*msg*

Explanation: InfoPrint XT cannot create the directory identified in the message. The parent directory might not exist or might not have the permissions required to create the specified directory. The message provides additional information about why the create action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified directory or directories and correct the problem. Then, enter the command again.

5016-231 An error occurred while changing to directory *directoryname* (error *ReturnCode*). ...*msg*

Explanation: InfoPrint XT cannot change to the directory identified in the message. The message

provides additional information about why the change action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified directory and correct the problem. Then, enter the command again.

5016-232 **An error occurred while opening directory** *directoryname* (**error** *ReturnCode*). *...msg*

Explanation: InfoPrint XT cannot open the directory identified in the message. The message provides additional information about why the open action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified directory and correct the problem. Then, enter the command again.

5016-233 **An error occurred while reading directory** *directoryname* (**error** *ReturnCode*). *...msg*

Explanation: InfoPrint XT cannot read the directory identified in the message. The message provides additional information about why the read action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified directory and correct the problem. Then, enter the command again.

5016-234 **An error occurred while resolving directory** *directoryname* (**error** *ReturnCode*). *...msg*

Explanation: InfoPrint XT cannot resolve the directory identified in the message. The directory might not exist or might not have the correct permissions. *msg* provides additional information about why the resolve action failed.

System action: InfoPrint XT cannot process the request.

User response: Verify that the specified directory exists and that it has the correct permissions. Then, enter the **pdxloadres** command again.

5016-240 **An error occurred while searching** *directoryname* (**error** *ReturnCode*). *...msg*

Explanation: You entered a command that required InfoPrint XT to scan a directory using a pattern-matching string. The scan operation failed. The message provides additional information about why the scan action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5016-250 **Unable to allocate storage (error** *ReturnCode*). *...msg*

Explanation: InfoPrint XT cannot allocate the required storage. The message provides additional information about why the storage allocation action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5016-280 **Command** *command* **failed (error** *ReturnCode*). *stderr*

Explanation: InfoPrint XT issued the command identified in the message, but it failed. The message provides additional information about why the command failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem.

5016-281 **Command** *command* **failed (error** *ReturnCode*).

Explanation: InfoPrint XT issued the command identified in the message. The command did not return any standard error output when it failed.

System action: InfoPrint XT cannot process the request.

User response: Depending on the command, there might be additional information in an InfoPrint Manager error log or a system error log. Use the log information to correct the problem.

5016-282 **The attempt to launch the command** *command* **failed (error** *ReturnCode*). *...msg*

Explanation: InfoPrint XT issued the command identified in the message, but it failed. The message provides additional information about why the command failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem.

5016-283 **An error occurred while reading from command** *command (ReturnCode). ...msg*

Explanation: InfoPrint XT cannot read the output from the command identified in the message. The message provides additional information about why the read action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5016-290 **An error occurred while setting the effective group to** *groupname (error ReturnCode). ...msg*

Explanation: InfoPrint XT cannot set the effective group to the value specified in the message. The message provides additional information about why the set action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5016-292 **You must be in the** *groupname* **group to issue this command.**

Explanation: You entered the command while logged in with a user name that is not in the required group.

System action: InfoPrint XT cannot process the request.

User response: Either add the user name to the group, or log in with a user name that is already in the group. Then, enter the command again.

5016-407 **An error occurred while querying the default server.** *stderr*

Explanation: You entered the **pdxtctxform** command to create an **x2afp** configurable transform object in the default InfoPrint Manager server. An error occurred when InfoPrint XT tried to determine the name of the default server. InfoPrint Manager sets the default server through the setting of the **PDPRINTER** environment variable. The message provides additional information about why the query action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5016-410 **An error occurred while parsing line in filename** *(error ReturnCode). ...msg*

Explanation: You specified parameters in the parameter mapping file. An error occurred when InfoPrint XT tried to parse the value of one of the lines in the file. The most likely cause is a problem with the content of a variable. For example, it might contain an unbalanced set of quotation marks.

System action: InfoPrint XT cannot process the request.

User response: Correct the line in the parameter mapping file and enter the command again.

5016-470 **Resource name** *file* **is not valid for deblocking.**

Explanation: You entered the **pdxtdblkres** command and specified a resource name that is not supported. The **pdxtdblkres** command can deblock CMD, FSL, ISL, and JSL resources.

System action: InfoPrint XT processes the request.

User response: Enter the command again and specify a valid resource name.

5016-471 **The label record is not valid.**

Explanation: You entered the **pdxtdblkres** command to deblock a resource. The first record in the resource is not a valid label record.

System action: InfoPrint XT processes the request.

User response: Enter the command again and specify a different resource.

5016-472 **A block is too short. It should be** *number* **bytes, not** *number* **bytes.**

Explanation: You entered the **pdxtdblkres** command to deblock a resource. A block in the resource is too short. The resource itself might be truncated.

System action: InfoPrint XT processes the request.

User response: Enter the command again and specify a different resource.

5016-473 **Resource name** *file* **is not valid for blocking.**

Explanation: You entered the **pdxtblkres** command and specified a resource name that is not valid. The **pdxtblkres** command can block CMD, FSL, ISL, and JSL resources.

System action: InfoPrint XT processes the request.

User response: Enter the command again and specify a valid resource name.

5016-501 *Date_Time (pid ProcessID) - transform started.*

Explanation: InfoPrint XT started to convert the Xerox job to AFP.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-502 *Date_Time (rc ReturnCode) - transform ended.*

Explanation: InfoPrint XT completed converting the Xerox job to AFP.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-503 **Transform arguments** (*argumentsource*) :

Explanation: This message, with message 5016-504, lists the transform arguments in use.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-504 *-Option "Value"*

Explanation: This message, with message 5016-503, lists the transform arguments in use.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-505 **Transform directives:** (*directivesource*)

Explanation: This message, with message 5016-506, lists the transform directives in use.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-506 *-directive "value"*

Explanation: This message, with message 5016-505, lists the transform directives in use.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-509 **Command Sequence:**

Explanation: This message, with message 5016-510, lists the commands that make up transform processing.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-510 *sequencenumber) commandstring*

Explanation: This message, with message 5016-509, lists the position of the command in the sequence of commands, and the command string itself.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-511 **Return Codes:**

Explanation: This message, with message 5016-512, lists the return codes from each of the commands in the transform process.

System action: InfoPrint XT processes the request.

User response: Depending on the return codes, you might need to do diagnostic tests or look through error logs to correct any problems.

5016-512 *SequenceNumber) ReturnCode (pid ProcessID)*

Explanation: This message, with message 5016-511, lists the return codes from each of the commands in the transform process. The first variable corresponds to the sequence number listed in message 5016-510. The second variable is the return code. The third variable is the process ID number for the command.

System action: InfoPrint XT processes the request.

User response: Depending on the return codes, you might need to do diagnostic tests or look through error logs to correct any problems.

5016-513 **Impressions (pages):** *number*

Explanation: This message shows the number of impressions that InfoPrint XT created for the job.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-521 *filename:*

Explanation: This message identifies the name of the log file or listing file that supplied the information about the error report.

System action: InfoPrint XT processes the request.

User response: Use the information from the error report to correct the problem. Then, submit the job again.

5016-600 Resource load process started for type "resourcetype"

Explanation: InfoPrint XT issues this message when it starts to load resources of a specific type. The message identifies the type of resource that InfoPrint XT is currently loading.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-601 Resource load process is complete for type "resourcetype"

Explanation: InfoPrint XT issues this message when it finishes loading resources of a specific type. The message identifies the type of resource that InfoPrint XT loaded.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-610 Resource conversion process started. Number of resources to convert: *number*.

Explanation: InfoPrint XT issues this message when it starts to convert resources of a specific type. The message indicates how many resources InfoPrint XT is converting.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-611 Conversion step *stepnumber* failed for resource *resourcename* (error *ReturnCode*).

Explanation: InfoPrint XT writes this message to the listing file for the resource identified in the message. Depending on how you loaded the resource, the listing file is in the %PDXTWORKDIR%\resources\common\pdxloadres directory, or the directory for a specific resource group, or the directory specified by the -o option. The message indicates the conversion step that failed. The return code provides additional information about why the conversion failed.

System action: InfoPrint XT cannot process the request.

User response: Use the return code to determine why the conversion process failed and correct the problem. Then, load the resource again.

Note: InfoPrint XT overwrites the listing file each time you use the **pdxloadres** command.

5016-612 *number* resources have completed conversion.

Explanation: When converting a group of resources, InfoPrint XT periodically issues this message to show the progress of the conversion process.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-613 Resource conversion process is complete. Number of successes: *number*.

Explanation: InfoPrint XT issues this message after it converts a group of resources. The message specifies the number of resources that InfoPrint XT converted successfully.

System action: InfoPrint XT processes the request.

User response: If any accompanying messages indicate that conversion failures occurred, determine the cause of the conversion failures and correct the problems. Then, load the resources that initially failed conversion again. If no conversion failures occurred, no action is necessary.

5016-614 Resource correlation process started.

Explanation: During the resource-load process, InfoPrint XT issues this message when it starts to build a resource correlation table.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-615 Resource correlation process is complete.

Explanation: During the resource-load process, InfoPrint XT issues this message when it finishes building a resource correlation table.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-616 Resource correlation step *stepname* failed (error *ReturnCode*).

Explanation: During the resource-load process, InfoPrint XT issues this message when it cannot build a resource correlation table. The return code provides additional information about why the correlation failed.

System action: InfoPrint XT cannot process the request.

User response: Use the return code to determine why the correlation process failed and correct the problem. Then, load the resource again.

5016-617 Metrics generation process started.

Explanation: During the resource-load process, InfoPrint XT issues this message when it starts to generate the metrics files.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-618 Metrics generation process is complete. Number of successes: *number*.

Explanation: InfoPrint XT issues this message after it generates the metrics files for one or more resources. The message specifies the number of metrics files that InfoPrint XT created successfully.

System action: InfoPrint XT processes the request.

User response: If any accompanying messages indicate that failures occurred, determine the cause of the failures and correct the problems. Then, load the resources that initially failed again. If no other failures occurred, no action is necessary.

5016-619 Install process started.

Explanation: During the resource-load process, InfoPrint XT issues this message when it starts to copy the AFP resources and metrics files to their appropriate directories.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-620 *number* resources have completed installation.

Explanation: When installing a group of resources, InfoPrint XT periodically issues this message to show the progress of the install process.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-621 Install process is complete.

Explanation: InfoPrint XT issues this message after it

finishes copying the AFP resources and the metrics files to the appropriate directories.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-690 Resource delete process started for type *resourcetype*. Number of resources to delete: *n*.

Explanation: InfoPrint XT issues this message when it starts to delete resources of a specific type. The message indicates the type of resource and how many resources InfoPrint XT is deleting.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-691 Resource delete process is complete for type *resourcetype*. Number of deletes: *n*.

Explanation: InfoPrint XT issues this message after it deletes a group of resources. The message specifies the number of resources that InfoPrint XT deleted successfully.

System action: InfoPrint XT processes the request.

User response: If any accompanying messages indicate that deletion failures occurred, determine the cause of the deletion failures and correct the problems. If no deletion failures occurred, no action is necessary.

5016-721 Download directives:

Explanation: This message, with message 5016-722, lists the download directives in use.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-722 *variable* = "*value*"

Explanation: This message, with message 5016-721, lists the environment variables and values that specify download directives.

System action: InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

Return code numbers

Tables 11 and 12 describe the return code numbers that some InfoPrint XT messages contain.

Table 11. Return code numbers 1-64 in InfoPrint XT messages

Error	Symbolic constant and explanation	Error	Symbolic constant and explanation
001	EPERM Operation not permitted	033	EDOM Numeric argument out of domain
002	ENOENT No such file or directory	034	ERANGE Result too large
003	ESRCH No such process	035	EIDRM Identifier removed
004	EINTR Interrupted function call	036	EDEADLK Resource deadlock avoided
005	EIO Input/output error	037	EALREADY Operation already in progress
006	ENXIO Device not configured	038	ENAMETOOLONG File name too long
007	E2BIG Argument list too long	039	ENOLCK No locks available
008	ENOEXEC Exec format error	040	ENOSYS Operation not applicable
009	EBADF Bad file descriptor	041	ENOTEMPTY Directory not empty
010	ECHILD No child processes	042	EILSEQ Illegal byte sequence
011	EAGAIN Resource temporarily unavailable	043	EPROTONOSUPPORT Protocol not support
012	ENOMEM Cannot allocate memory	044	ESOCKETNOSUPPORT Socket type not supported
013	EACCES Permission denied	045	EOPNOTSUPP Operation not supported
014	EFAULT Bad address	046	EPFNOSUPPORT Protocol family not supported
015	ENOTBLK Not a 'Block' device	047	EAFNOSUPPORT Address family not supported by protocol family
016	EBUSY Device busy	048	EADDRINUSE Address already in use
017	EEXIST File exists	049	EADDRNOTAVAIL Cannot assign requested address
018	EXDEV Improper link across devices	050	ENETDOWN Network is down
019	ENODEV No such device	051	ENETUNREACH Network is unreachable
020	ENOTDIR Not a directory	052	ENETRESET Network dropped connection on reset
021	EISDIR Is a directory	053	ECONNABORTED Software caused connection abort
022	EINVAL Invalid argument	054	ECONNRESET Connection reset by peer
023	ENFILE Too many open files in system	055	ENOBUFS No buffer space available
024	EMFILE Too many open files	056	EISCONN Socket is already connected
025	ENOTTY Inappropriate I/O control operation	057	ENOTCONN Socket is not connected
026	ETXTBSY Text file busy	058	ESHUTDOWN Cannot send after socket shutdown
027	EFBIG File too large	059	ETOOMANYREFS Too many references: cannot splice
028	ENOSPC No space left on device	060	ETIMEDOUT Operation timed out
029	ESPIPE Invalid seek on non-seekable object	061	ECONNREFUSED Connection refused
030	EROFS Read-only file system	062	ELOOP Too many levels of symbolic links
031	EMLINK Too many links	063	EBADENCRYPTDATA Invalid encrypted data found
032	EPIPE Broken pipe	064	EHOSTDOWN Host is shut down

Table 12. Return code numbers 65-127 in InfoPrint XT messages

Error	Symbolic constant and explanation	Error	Symbolic constant and explanation
065	EHOSTUNREACH No route to host	081	ENOTSOCK Socket operation on non-socket
066	ENOSETUID setuid/setgid bit feature is disabled	082	EDESTADDRREQ Destination address required
067	EPROCLIM Too many processes	083	EMSGSIZE Message too long
068	EUSERS Too many users	084	EPROTOTYPE Protocol wrong type for socket
069	EDQUOTE Disc quota exceeded	085	ENOPROTOOPT Protocol not available
070	N/A Stale NFS file handle	086	ENOMSG No message of desired type
071	N/A Too many levels of remote in path	087	EWINPATH Cannot map path name to Windows namespace
072	N/A RPC struct is bad	088	E_OVERFLOW Value too large to be stored in data type
073	N/A RPC version not available	089	E2SMALL Data buffer too small to store result
074	N/A RPC program not available	090	EHOSTNOTFOUND Unknown host
075	N/A Program version wrong	091	ETRYAGAIN Host name lookup failure (try again)
076	N/A Bad procedure for program	092	ENORECOVERY Unknown server error (no recovery)
077	N/A Reserved	093	ENODATA No address associated with name
078	N/A Reserved	094	ENOTSUP Not supported
079	EEYPE Inappropriate file type or format	095	EPROTO Protocol error
080	EINPROGRESS Operation now in progress	096-127	Reserved

Appendix C. Resource converter messages: 5018-*nnn*

This section lists the messages that InfoPrint XT for Windows (InfoPrint XT) can issue when you load Xerox fonts, images, and logos. Some messages might include an additional error return code. See “Return code numbers” on page 113 for explanations of these numbers.

5018-801 **An error occurred while opening file**
filename (error ReturnCode). ...msg

Explanation: InfoPrint XT could not open the file identified in the message. The message provides additional information about why the open action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified file or the directory that contains the file and correct the problem. Then, enter the original command that resulted in this error message again.

5018-802 **An error occurred while creating file**
filename (error ReturnCode). ...msg

Explanation: InfoPrint XT could not create the file identified in the message. The parent directory might not exist, or might not have the permissions required to create the specified file. The message provides additional information about why the create action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the file and directory, and correct the problem. Then, enter the command again.

5018-803 **An error occurred while reading from**
file (error ReturnCode). ...msg

Explanation: InfoPrint XT could not read the file identified in the message. The message provides additional information about why the read action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, enter the command again.

5018-804 **An error occurred while writing to file**
(error ReturnCode). ...msg

Explanation: InfoPrint XT could not write to the file identified in the message. The message provides

additional information about why the write action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the specified file and use the additional information that the message provides to correct the problem. Then, enter the command again.

5018-805 **An error occurred while allocating**
storage (error ReturnCode). ...msg

Explanation: InfoPrint XT could not allocate the required storage. The message provides additional information about why the storage allocation action failed.

System action: InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5018-812 **Incorrect message level *level* (error**
***ReturnCode*).**

Explanation: You entered a command and included an option that is not valid. The message text identifies the option.

System action: InfoPrint XT cannot process the request.

User response: Review the syntax for the command and enter the command again.

5018-817 **File *resourcename* is not a valid Xerox**
resource (error ReturnCode).

Explanation: InfoPrint XT determined that the file is not a valid Xerox resource.

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox resource. Correct the problem and enter the command again.

5018-818 **The image converter did not recognize the internal format of resource**
resourcename.

Explanation: The image converter found an unexpected combination of internal data while it tried to determine the format of the resource.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-819 **X scale sequenceRational**
'XsequenceRational' does not equal Y scale
sequenceRational 'YsequenceRational' in
resource ResourceName.

Explanation: The Interpress sequenceRationals for X scale and Y scale are not equal. The image converter cannot determine the resolution of the image.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-820 **Scan line length 'lengthvalue' does not**
match image width 'widthvalue' or image
height 'heightvalue' .

Explanation: The scan line length does not match either the width or the height of the image. The scan line length must match either the width or the height for InfoPrint XT to determine image orientation.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-821 **Unsupported Xerox font type type found**
in filename.

Explanation: The resource converter found a font whose format is not single-byte-character-set (SBCS) with ASCII code points. Therefore, the converter cannot create an AFP font from the resource.

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox font resource. If it is valid, contact your technical support representative.

5018-822 **Unsupported Xerox logo type type found**
in filename.

Explanation: The resource converter found a logo whose format is not single-byte-character-set (SBCS) with ASCII code points. Therefore, the converter cannot create an AFP page segment from the resource.

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox logo resource. If it is valid, contact your technical support representative.

5018-823 **An internal logic error occurred:**
FunctionName.

Explanation: An incorrect structure pointer was passed to the InfoPrint XT application programming interface (API).

System action: InfoPrint XT cannot process the request.

User response: Contact your technical support representative.

5018-824 **Specified code point x'codepoint'exceeded**
the font high code point x'maxcodepoint'.

Explanation: The specified code point exceeded the highest code point in the Xerox font that specifies a raster pattern.

System action: InfoPrint XT cannot process the request.

User response: Specify a code point that is in the code point range available in the Xerox font. Enter the command again.

5018-825 **Unable to parse a valid Xerox resource**
name from the input file name of
filename (error ReturnCode).

Explanation: InfoPrint XT cannot determine a valid Xerox resource name from the input file name. Valid Xerox input file names contain a 1-to-6 character resource name before the period. The valid Xerox resource name characters are uppercase alphabetic characters, numeric characters, and the dollar sign (\$).

System action: InfoPrint XT cannot process the request.

User response: Change the resource name to a valid Xerox resource name and enter the command again.

5018-826 **The image converter did not recognize scan orientation transformation input value *inputvalue* in resource *resourcename*.**

Explanation: The transformation input value specified for the scan orientation is not valid.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-827 **The code page *codepage* does not contain valid AFPDS.**

Explanation: The specified code page is not a valid Advanced Function Presentation (AFP) code page.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid AFP code page and enter the command again.

5018-829 **Xerox font *fontname* contains no valid code points.**

Explanation: Because the Xerox font does not contain any code points that the transform can process, InfoPrint XT cannot generate an AFP font.

System action: InfoPrint XT cannot process the request.

User response: Do not request any more loads of this resource. Contact your technical support representative.

5018-830 **Error return code from compression algorithm: *ReturnCode*.**

Explanation: The compression algorithms reported an error while compressing the data.

System action: InfoPrint XT continues processing.

User response: See the error listing for error messages that identify the problem.

5018-831 **The image converter found unknown Line Control Code *x'linecontrolcode'* (error *ReturnCode*).**

Explanation: While decompressing the Xerox image, InfoPrint XT found an incorrect Line Control Code (LCC).

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-832 **Current position in compressed image: *%d*.**

Explanation: InfoPrint XT found an error while processing the compressed image data. The message provides the offset for the compressed image data.

System action: InfoPrint XT cannot process the request.

User response: See the error listing for error messages that identify the problem.

5018-833 **Current position in uncompressed image: *location*.**

Explanation: InfoPrint XT found an error while processing the uncompressed image data. The message provides the offset in the uncompressed image data.

System action: InfoPrint XT cannot process the request.

User response: See the error listing for error messages that identify the problem.

5018-834 **End of image not encountered.**

Explanation: InfoPrint XT did not find X'71' at the end of the image.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5018-835 **The image converter found an unsupported scan orientation of *scanorientation* in resource *resourcename*.**

Explanation: The scan orientation used to create the image is not portrait. InfoPrint XT only supports the portrait scan orientation in Restricted Raster Encoding image resources.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-836 **Resource *resourcename* specifies *samplecount* samples per pixel.**

Explanation: InfoPrint XT supports a maximum of two samples per pixel in Restricted Raster Encoding image resources.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-837 **Resource *resourcename* specifies a maximum sample value of *samplevalue*.**

Explanation: InfoPrint XT supports a maximum sample value of one in Restricted Raster Encoding image resources.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-838 **Resource *resourcename* specifies an incomplete highlight color ink name.**

Explanation: InfoPrint XT expects fully qualified ink names (ink catalog name, palette name, and color name) in Restricted Raster Encoding image resources.

System action: InfoPrint XT cannot convert the image.

User response: Verify that the resource is a valid Xerox image resource. If it is valid, contact your technical support representative.

5018-860 **An error occurred while copying data to buffer (error *ReturnCode*).**

Explanation: The amount of data that InfoPrint XT is copying to a MO:DCA structured field exceeds the internal buffer size. The generated AFP resource is incomplete.

System action: InfoPrint XT cannot process the request.

User response: Contact your technical support representative.

5018-861 **Incorrect width: *widthvalue* (error *ReturnCode*).**

Explanation: The Xerox resource specified an incorrect width value.

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox resource. If it is valid, contact your technical support representative.

5018-862 **Incorrect height: *heightvalue* (error *ReturnCode*).**

Explanation: The Xerox resource specified an incorrect height value.

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox resource. If it is valid, contact your technical support representative.

5018-863 **The resource converter shifted an image down by *n* pels. This requires an upward shift by the same value.**

Explanation: While converting a font code point or a logo to a page segment, InfoPrint XT shifted the image down from the media origin by the reported number of pels. The correlation table entry for this code point requires an equivalent upward shift.

System action: InfoPrint XT continues processing.

User response: Edit the correlation table entry for this page segment, and enter a negative *y* shift value that is equal to the downward shift reported in this message.

5018-866 **Error occurred while compressing data (error *ReturnCode*).**

Explanation: The InfoPrint XT compression algorithms reported an error while compressing the data.

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox resource, and that the resource is not truncated. If it is valid and complete, contact your technical support representative.

5018-867 **Error occurred while accessing memory beyond allocated buffer (error *ReturnCode*).**

Explanation: The Xerox resource references image data that is not in the resource file.

System action: InfoPrint XT cannot process the request.

User response: Verify that the resource is a valid Xerox resource, and that the resource is not truncated. If it is valid and complete, contact your technical support representative.

5018-868 **The resource converter shifted an image to the right by *n* pels. This requires a shift to the left by the same value.**

Explanation: While converting a font code point or logo to a page segment, InfoPrint XT shifted the image right from the media origin by the reported number of pels. The correlation table entry for this code point requires an equivalent left shift.

System action: InfoPrint XT continues processing.

User response: Edit the correlation table entry for this page segment, and enter a negative *x* shift value that is equal to the right shift reported in this message.

Appendix D. Resource utility messages and data stream converter messages: AIOxxxnnnx

This section lists the messages that the InfoPrint XT for Windows (InfoPrint XT) resource utility and Xerox data stream converter programs can issue. Make sure that you see the appropriate set of messages, depending on whether InfoPrint XT issues them while loading a resource or while converting a job.

Resource path names used in messages

Some of the messages and message explanations include information about where the resource utility or data stream converter looked for reformatted Xerox resources and Advanced Function Presentation (AFP) resources. The **reformatted Xerox resource path** is the location of the metrics files that InfoPrint XT generates when you load a Xerox resource. Depending on whether you loaded them as common resources, loaded them in a specific resource group, or loaded them in a directory of your choice, the reformatted Xerox resource path is one of these:

- %PDXTWORKDIR%\resources\common\metrics
- %PDXTWORKDIR%\resources\resgrp\metrics
- C:\OtherDirectory\metrics

Note: Reformatted Xerox resource path is equivalent to *metrics directory*, the term that other areas of this publication use.

The **AFP resource path** is the directory that contains the AFP resources that InfoPrint XT generates when you load Xerox printable resources. The AFP resource path is one of these:

- %PDXTWORKDR%\resources\common
- %PDXTWORKDR%\resources\resgrp
- C:\OtherDirectory

Note: AFP resource path is equivalent to *AFP resource directory*, the term that other areas of this publication use.

InfoPrint XT resource utility messages

Many of the messages contain variable data, shown in italics, which InfoPrint XT replaces with specific information when it issues the messages. A vertical bar (|) between portions of variable data means that InfoPrint XT uses only one of the variable-data strings when it issues the message. The error condition determines the variable-data string that InfoPrint XT uses.

The middle three characters of the message identifier indicate the program module that found the error. This chapter replaces these with the characters *xxx*. These characters are variable and have no meaning to users.

The message identifier ends with a letter that indicates the severity:

- I** Informational. Processing continues. This corresponds to return code 0. The resource or resources processed successfully.
- W** Warning. Processing continues. This corresponds to return code 4. It alerts

the user that the resource utility found a possible problem in the input resource. However, the resource or resources processed successfully.

- E** Error. Processing continues. This corresponds to return code 8. This indicates an error that caused InfoPrint XT to complete a default action. Error messages issued when the resource utility is converting an FRM indicate that the AFP overlay generated by InfoPrint XT and printed on an IPDS printer might or might not match the output of the same resource printed on a Xerox printer. Otherwise, an error prevented InfoPrint XT from loading the resource.
- S** Severe error. InfoPrint XT processing stops. This corresponds to return code 12. An error prevented InfoPrint XT from loading the resource.
- U** Unrecoverable error. InfoPrint XT processing stops. This corresponds to return code 16. An error prevented InfoPrint XT from loading the resource.

AIOxxx000S Unknown logic error.

Explanation: An unexpected error condition occurred in the parameter parser.

System action: InfoPrint XT cannot process the resource.

User response: If you are converting a Xerox job, make sure that the conversion parameters for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx000S Unrecognized keyword: *keyword*. Valid keywords are:

keyword
:
:
keyword

Explanation: The parameter parser found a keyword that it did not recognize.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx001S Specified option for keyword: *keyword* is too long. Maximum length is *length*.

Explanation: The parameter parser found a value for a keyword that is too long.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93.

Otherwise, report this message to your technical support representative.

AIOxxx002S Unrecognized option for the keyword: *keyword*. Valid options for this keyword are:

option
:
:
option

Explanation: The parameter parser found a keyword option or value that is not valid.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx003S Value for keyword: *keyword* is out of range. Valid range is *lower_limit* to *upper_limit*.

Explanation: The parameter parser found a keyword value that is not in the range of valid values.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx004S Extra data: *data_string* was found after the file name. Data ignored.

Explanation: The parameter parser found extraneous data among the keywords.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx203S *code_module* could not read parameters due to *error_condition*. Processing cannot continue without correction of parameter input error.

Explanation: An internal InfoPrint XT error occurred.

System action: InfoPrint XT cannot process the resource.

User response: Report this message to your technical support representative.

AIOxxx204I Reading resource utility parameters.

Explanation: This is an informational message that indicates that InfoPrint XT has begun reading the resource conversion parameters. It requires no user response.

AIOxxx208I The resource utility parameters in effect are:

option1 option2 option3 optionN

Explanation: This message reports the runtime options.

System action: InfoPrint XT continues to process the resources.

User response: This is an informational message and requires no user response.

AIOxxx211E Incorrect resource utility parameter *option*.

Explanation: A user-supplied conversion parameter did not match the valid options.

System action: InfoPrint XT cannot process the resource.

User response: Correct the option *option* and rerun the program.

AIOxxx220I Processing selection criteria...

Explanation: This is an informational message and requires no user response.

AIOxxx221E The following SELECT parameter value is too long: *parameter*.

Explanation: An internal InfoPrint XT error occurred.

System action: InfoPrint XT cannot process the resource.

User response: Report this message to your technical support representative.

AIOxxx222E Incorrect character *character* in SELECT parameter value *value*.

Explanation: An internal InfoPrint XT error occurred.

System action: InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

AIOxxx226I The resource utility found no resource names that match one or more SELECT criteria.

criteria1 criteria2 criteria3 criteriaN

Explanation: This is an informational message that reports SELECT criteria for which the resource utility found no matching resource names. It requires no user response.

AIOxxx227I The resource utility will process Xerox resources that match the following SELECT criteria:

criteria1 criteria2 criteriaN

Explanation: This is an informational message that reports the types of resources that InfoPrint XT is processing. It requires no user response.

AIOxxx228I Processing will occur for files with the following filetypes:

*filetype1
filetype2
:
filetypeN*

Explanation: This is an informational message that reports the types of resources that InfoPrint XT is processing. It requires no user response.

AIOxxx230I Processing Correlation Source File...

Explanation: This is an informational message that indicates that InfoPrint XT is rebuilding the correlation tables. It requires no user response.

AIOxxx231E Line *line_number* - correlation resource name *resource_name* contains incorrect characters.

Explanation: A resource name in the resource correlation table contains characters that are not valid.

System action: InfoPrint XT continues processing the resource, but it does not process line *line_number*.

User response: If you manually updated the correlation table, correct the entry and rerun the failing command. Otherwise, this indicates an internal error in InfoPrint XT. Report this message to your technical support representative.

AIOxxx232E Correlation source record *line_number* does not start with D, F, I, or L.

Explanation: An entry in the resource correlation table starts with an incorrect record type indicator.

System action: InfoPrint XT continues processing the resource, but it does not process line *line_number*.

User response: If you manually updated the correlation table, correct the indicator and rerun the failing command. Otherwise, this indicates an internal error in InfoPrint XT. Report this message to your technical support representative.

AIOxxx233E The correlation source file processor found a duplicate entry for *resource_name* on line *line_number*. The resource utility will use the last valid entry.

Explanation: The resource correlation table contains more than one entry for a specific Xerox resource.

System action: Processing continues. InfoPrint XT uses the last valid correlation entry in the table.

User response: If you manually updated the correlation table, remove the duplicate entry and rerun the failing command. Otherwise, this indicates an internal error in InfoPrint XT. Report this message to your technical support representative.

AIOxxx234E A required field on line *line_number* of the correlation source file is blank.

Explanation: A correlation record is incomplete.

System action: Processing continues, but InfoPrint XT does not process line *line_number*. This is the line with the incomplete correlation record.

User response: If you manually updated the

correlation table, complete the incomplete record and rerun the failing command. Otherwise, this indicates an internal error in InfoPrint XT. Report this message to your technical support representative.

AIOxxx235E The correlation source file processor found an incorrect X/Y offset for page segment *psegname* on line *line_number*.

Explanation: The X- or Y-offset specified for a page segment in the resource correlation table is not valid.

System action: InfoPrint XT cannot process the resource.

User response: Correct the offset value and rerun the failing command.

AIOxxx236E The resource utility found an incorrect correlation for Xerox DBCS font *font_name* on line *line_number*. The correlated AFP object must be a coded font.

Explanation: You must correlate each Xerox DBCS font to an AFP coded font, which associates an AFP code page with an AFP outline character set. You cannot correlate a DBCS font to an AFP character set and AFP code page pair.

System action: InfoPrint XT cannot process the resource.

User response: Specify an AFP coded font for the Xerox DBCS font. Rebuild the font correlation table.

AIOxxx237I The correlation source processor did not create the font correlation table.

Explanation: InfoPrint XT found no valid font entries in the correlation source file. Other messages might provide more information about the problem.

System action: InfoPrint XT might continue processing, or it might not process a particular resource.

User response: Make sure that at least one font resource is loaded for the resource group. InfoPrint XT cannot process more resources without at least one font already loaded. If you manually updated the resource correlation table and expected InfoPrint XT to create the table, verify that the entries for the missing table are correct. Then, rerun the command that resulted in this message. If you did not update the resource correlation table, but you expected InfoPrint XT to create the table, report this message to your technical support representative.

AIOxxx238I The correlation source processor did not create the *table_name* correlation table.

Explanation: InfoPrint XT found no valid image or logo entries in the correlation source file. Other messages might provide more information about the problem.

System action: InfoPrint XT might continue processing, or it might not process a particular resource.

User response: If you manually updated the resource correlation table and expected InfoPrint XT to create the table, verify that the entries for the missing table are correct. Then, rerun the command that resulted in this message. If you did not update the resource correlation table, but you expected InfoPrint XT to create the table, report this message to your technical support representative.

AIOxxx239I The correlation source processor created *table_name* with *n* entries.

Explanation: This is an informational message that indicates the correlation table that InfoPrint XT created (*table_name*), and the number of entries (*n*) in the table. InfoPrint XT creates correlation tables for fonts, images, and logos. This message requires no user response.

AIOxxx240I Processing Translation Source File...

Explanation: This is an informational message that indicates InfoPrint XT is rebuilding the translation tables. It requires no user response.

AIOxxx241E Hexadecimal value *x'n'* on line *line_number* of translation table *table_name* is not valid.

Explanation: This message indicates that an internal error exists in a translation table source record.

System action: InfoPrint XT cannot process the resource.

User response: Report this message to your technical support representative.

AIOxxx242E The translation source file processor found duplicate translation table name *table_name* on line *line_number*. The processor will use the last valid definition.

Explanation: This message indicates that an internal error exists in a translation table source record.

System action: InfoPrint XT continues processing.

User response: If you manually updated the translation source file, correct the record identified in the message. Then, rerun the command that caused this

error. Otherwise, report this message to your technical support representative.

AIOxxx243E Not enough records in translation table *table_name* on line *line_number*.

Explanation: This message indicates that an internal error exists in a translation table source record.

System action: InfoPrint XT cannot process the resource.

User response: If you manually updated the translation source file, correct the record identified in the message. Then, rerun the failing command. Otherwise, report this message to your technical support representative.

AIOxxx244E Translation table name *table_name* has incorrect characters on line *line_number*.

Explanation: This message indicates that an internal error exists in a translation table source record.

System action: InfoPrint XT cannot process the resource.

User response: If you manually updated the translation source file, correct the record identified in the message. Then, rerun the failing command. Otherwise, report this message to your technical support representative.

AIOxxx245E The translation source file processor found an incorrect record on line *line_number*.

Explanation: This message indicates that an internal error exists in a translation table source record.

System action: InfoPrint XT cannot process the resource.

User response: If you manually updated the translation source file, correct the record identified in the message. Then, rerun the failing command. Otherwise, report this message to your technical support representative.

AIOxxx246I The translation source file processor wrote *number* translation tables to the reformatted Xerox resource path:

table1 table2 table3 table4 tableN

Explanation: This is an informational message that indicates the number of translation tables that the InfoPrint XT translation source file processor created. It requires no user response.

AIOxxx247I The resource utility created no translation tables:

Explanation: The translation source entries in the translation tables contained errors.

System action: InfoPrint XT cannot process the resource.

User response: If you manually updated the translation source file, correct the file and rerun the failing command. Otherwise, report this message to your technical support representative.

AIOxxx250I Processing Xerox resources...

Explanation: This is an informational message that indicates that InfoPrint XT is creating the metrics tables for resources. It requires no user response.

AIOxxx251I The resource utility found no reformatted Xerox DBCS fonts for metrics extraction.

Explanation: InfoPrint XT tried to extract DBCS AFP font metrics, but it did not find a corresponding reformatted Xerox font file.

System action: InfoPrint XT cannot process the resource.

User response: Verify that the fonts you are loading include Xerox DBCS fonts.

AIOxxx252W The data stream converter cannot use JDL *jdl_name*/JDE *jde_name* pair for data stream conversion due to one or more unsupported BLOCK | RECORD command functions:

function1 function2 function3

Explanation: The JDL/JDE pair successfully loads, but InfoPrint XT issues message AIOxxx775S and stops processing if data stream conversion uses the JDL/JDE pair. The unsupported functions that InfoPrint XT might list are FORMAT \neg = BIN, LMULT \neg = 1, and ZERO = YES.

System action: InfoPrint XT continues to process the resource.

User response: If the JDL/JDE pair is essential to printing operations, report this message to your technical support representative.

AIOxxx253W The resource utility will process Xerox resource *filename.filetype* by using paper size *paper_size1* instead of the requested *paper_size2*.

Explanation: The resource utility was given a paper size to use during Xerox form conversion that is

different from the paper size defined internally in the form. InfoPrint XT used the internally specified paper size.

System action: InfoPrint XT continues processing the resource.

| **User response:** No action is necessary, unless you
| want to use the paper size that you specified. In that
| case, you must specify the PAPER command in the FSL
| for the Xerox FRM resource, and recompile it using the
| Xerox FDL command. This sets the internally specified
| size to the size that you want. Then, reload the FRM
| using the InfoPrint XT **pdxloadres** command.

AIOxxx254W While converting form *form_name*, the following errors occurred:

Explanation: Additional error messages provide specific information about the errors that InfoPrint XT found during the conversion of form *form_name*.

System action: InfoPrint XT might or might not have processed the resource, depending on the errors.

User response: Review the errors listed and do corrective actions as necessary.

AIOxxx255E The form converter could not find logo *logo_name* | image *image_name* in the logo | image correlation table.

Explanation: InfoPrint XT did not find entries for the named logo or image in the correlation tables located in the reformatted Xerox resource path. The logo correlation tables are **tab.alt** and **tab.slt**. The image correlation tables are **tab.ait** and **tab.sit**.

System action: InfoPrint XT cannot process the request.

User response: Load the logo or image identified in the message.

AIOxxx256E The form converter could not find logo *logo_name* | image *image_name* in the reformatted Xerox resource path.

Explanation: While processing a Xerox form, InfoPrint XT determined that the form referenced a Xerox LGO file (*logo_name*) or an IMG file (*image_name*) that is not loaded on the system.

System action: InfoPrint XT cannot process the resource.

User response: Load the resource identified in the message and the form that generated the error.

AIOxxx259S The resource utility found an inconsistency in Xerox resource *filename.filetype*:

phase_name: error_info

Explanation: The program found a resource (*filename.filetype*) that it cannot process.

System action: Processing continues, but InfoPrint XT does not convert the resource.

User response: A phase number and diagnostic information follow this message to help identify the problem. Use the diagnostic information to correct the problem. If the problem continues, report this message to your technical support representative.

AIOxxx260I The number of Xerox resources successfully processed was *number*.

resource1 resource2 resourceN

Explanation: This is an informational message and requires no user response.

AIOxxx261I The resource utility processed no Xerox resources successfully.

Explanation: This is an informational message. Other messages report the reasons why InfoPrint XT cannot successfully process the resources.

AIOxxx262I The number of Xerox resources not successfully processed was *number*.

Explanation: InfoPrint XT did not process *number* resources. Other messages explain the errors found by InfoPrint XT.

System action: InfoPrint XT cannot process the resource or resources listed.

User response: Review the other messages and correct the problems. Then, load the resources again.

AIOxxx263I The resource utility processed all requested Xerox resources successfully.

Explanation: InfoPrint XT successfully processed all the Xerox resources. This is an informational message and requires no user response.

AIOxxx264S The resource utility processed none of the requested Xerox resources successfully.

Explanation: InfoPrint XT cannot successfully process any of the Xerox resources. Other messages explain the errors found by InfoPrint XT.

System action: InfoPrint XT cannot process the resources.

User response: Review the other messages and correct the problems. Then, load the resources again.

AIOxxx265I The resource utility skipped no Xerox resources.

Explanation: This is an informational message. Other messages indicate whether InfoPrint XT successfully completed the task.

AIOxxx266I The number of Xerox resources skipped by the resource utility was *number*.

Explanation: This is an informational message that lists the internal names of the Xerox resources that the resource utility did not process. Other messages indicate whether InfoPrint XT successfully completed the task.

AIOxxx268W One or more Xerox resources do not conform to the typical source file format of sequenced 80-byte records. *number* may not have processed successfully.

file01.xxx file02.xxx ... filenn.xxx

Explanation: This message indicates that InfoPrint XT might not have recognized the Xerox source file format in the files listed. Possible causes are that the internal record length was not 80, the sequence numbers were not found in columns 75 to 80 of every possible 80-byte record, or both conditions exist. InfoPrint XT tried to reformat the resource. However, because the listed files might not contain ASCII text, the corresponding resources might not be usable.

System action: InfoPrint XT continues processing the resource.

User response: Print a job that uses the resources to determine whether they are usable. If they are not, create them again.

AIOxxx270I The *table_name* correlation table has *number* entries.

Explanation: This is an informational message that summarizes the number of entries in each resource correlation table (*table_name*). It requires no user response.

AIOxxx271W AFP resource *AFP_resource*, correlated to Xerox resource *Xerox_resource*, does not exist in the AFP resource path.

Explanation: InfoPrint XT cannot find the *AFP_resource* resource for Xerox resource *Xerox_resource* in the AFP resource path. The AFP resource name might be incorrect, or it might not be available on the system.

System action: The process failed.

User response: If you manually updated the correlation table, verify that the entry is correct and that the AFP resource exists. Then, rerun the failing command. Otherwise, report this message to your technical support representative.

AIOxxx272W No correlation exists between Xerox resource *Xerox_resource* and an AFP resource.

Explanation: The resource correlation table does not contain a correlation entry for the Xerox reformatted resource *Xerox_resource*. The reformatted Xerox resource path contains the reformatted resource.

System action: The process failed.

User response: Reload the Xerox resource and rerun the failing command.

AIOxxx273W Xerox font *font_name* in the font correlation table does not exist in the reformatted Xerox resource path.

Explanation: The resource correlation table does not contain an entry for the Xerox font *font_name*. The reformatted Xerox resource path contains the reformatted resource.

System action: The process failed.

User response: Reload the Xerox resource and rerun the failing command.

AIOxxx274W Translation table *table_name* in the font correlation table does not exist in the reformatted Xerox resource path.

Explanation: The font correlation table contains an entry for the table *table_name*, but the table does not exist.

System action: The process failed.

User response: If you manually updated the correlation table, verify that the translation table identified in the message exists and correct the entry. Then, rerun the failing command. Otherwise, report this message to your technical support representative.

AIOxxx275W Xerox logo *logo_name* in the logo correlation table does not exist in the reformatted Xerox resource path.

Explanation: The resource correlation table does not contain an entry for the Xerox logo *logo_name*. The reformatted Xerox resource path contains the reformatted resource.

System action: The process failed.

User response: Reload the Xerox resource and rerun the failing command.

AIOxxx276W Xerox image *image_name* in the image correlation table does not exist in the reformatted Xerox resource path.

Explanation: The resource correlation table does not contain an entry for the Xerox image *image_name*. The reformatted Xerox resource path contains the reformatted resource.

System action: The process failed.

User response: Reload the Xerox image resource and rerun the failing command.

AIOxxx280I Processing cluster database source file *cls_name*...

Explanation: This is an informational message that lists the name, *cls_name*, of the cluster database source file that InfoPrint XT is compiling. It requires no user response.

AIOxxx281E The resource utility found incorrect cluster name *cl_name* in cluster database source file *cls_name*, line *line_number*. Cluster names must begin with a letter and must consist of 1 to 6 alphanumeric characters.

Explanation: Cluster names must conform to the convention for Xerox file names that the message describes.

System action: InfoPrint XT cannot process the request.

User response: Correct the cluster name and rerun the failing command.

AIOxxx282E The resource utility found incorrect character string '*EBCDIC_char*' (*x'EBCDIC_hex*) in cluster database source file *cls_name*, cluster name *cl_name*, line *line_number*, column *column_number*: *error_description*.

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. *error_description* can be any of these:

- ASIZ must be coded as 'A' or blank.
- Preferred AFP MMC tray must be blank, 'E', 'M', or '1' - '255', right justified.
- Preferred Xerox trays are positional and must be blank or '1' - '8'.
- Incorrect preferred Xerox tray position.
- Current AFP MMC tray must be blank, 'E', 'M', or '1' - '255', right justified.
- Current Xerox trays are positional and must be blank or '1' - '8'.
- Incorrect current Xerox tray position.

System action: InfoPrint XT cannot process the request.

User response: Correct the character and rerun the failing command.

AIOxxx283W Undefined cluster name *cl_name* in cluster database source file *cls_name*, line *line_number*, has no current or preferred AFP MMC trays assigned and will be excluded from reformatted cluster database *clb_name*.

Explanation: The *cl_name* cluster entry on record *line_number* of a cluster database source file *cls_name* is not meaningful because it does not reference any current or preferred input media sources.

System action: If InfoPrint XT finds no other errors that are more serious than this for *cls_name*, it writes the reformatted cluster database to the resource library without the undefined cluster entry.

User response: Check for any other errors that InfoPrint XT might have found while reformatting the cluster database.

AIOxxx283W Undefined cluster name *cl_name* in cluster database source file *cls_name*, line *line_number*, has no current or preferred AFP MMC trays assigned.

Explanation: The *cl_name* cluster entry on record *line_number* of a cluster database source member *cls_name* is not meaningful because it does not reference any current or preferred input media sources.

System action: Because InfoPrint XT found other, more serious errors in *cls_name*, it did not write the reformatted cluster database to the resource library.

User response: Correct the cluster database source member and rerun the failing command.

AIOxxx284E The resource utility found no valid cluster entries in Xerox cluster database *file_name.lib*, and could not process the resource.

Explanation: While processing Xerox cluster database *file_name.lib*, InfoPrint XT did not find any cluster entries.

System action: InfoPrint XT did not reformat the database. If a source file was requested, InfoPrint XT did not produce it.

User response: Verify that the Xerox cluster database that InfoPrint XT is processing contains cluster entries, and then reload the file.

AIOxxx290U The resource utility could not find the *source_type* source file.

Explanation: InfoPrint XT cannot find the correlation source file or the translation source file in the reformatted Xerox resource path.

System action: InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

AIOxxx292U File access error with return code *return_code* occurred during action operation of file *file_name* in the *path_name* path directory or DDNAME:

error_description

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

AIOxxx294W A record in *file_name* was longer than the maximum record length of *nn*. The transform ignored data in bytes beyond the expected length.

Explanation: A logic error occurred while reading from file *file_name*.

System action: InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupt. Make sure that the *xcc* conversion parameter specified the correct type of carriage control, and that the data stream conversion parameters are correct. Then, do the operation that caused this error again.

AIOxxx298U A program or operating system error has occurred. Internal diagnostic information follows:

error_info *error_info*

Explanation: A logic error occurred in the resource utility program. InfoPrint XT supplies a phase name, diagnostic information, or both, to help identify the problem.

System action: The process failed.

User response: Report this message to your technical support representative.

AIOxxx299U Resource utility processing aborted due to unrecoverable errors.

Explanation: This message occurs when the resource utility program ends abnormally. The previous messages give the reason for abnormal end of the program.

System action: InfoPrint XT cannot process the resource.

User response: Review the other messages that InfoPrint XT issued and correct the problems. Then, rerun the failing command.

AIOxxx444I The number of text and graphic fonts listed in the form *form_name* was *number*.

.fnt name	AFP name(s)	line spacing value
<i>fnt_name</i>	<i>AFP_name</i>	<i>x inches or y pels</i>
<i>fnt_name</i>	<i>AFP_name</i>	<i>x inches or y pels</i>
:		

AIOxxx444I The number of fonts correlated to page segments in form *form_name* was *number*.

.fnt name	Page segment name(s)	trigger	line spacing value
<i>fnt_name</i>	<i>pseg_name</i>	<i>x'hh</i>	<i>x inches or y pels</i>
<i>fnt_name</i>	<i>pseg_name</i>	<i>x'hh</i>	<i>x inches o y pels</i>
:			

AIOxxx444I The number of logo references in form *form_name* was *number*.

.lgo name	Page segment name(s)	position
<i>lgo_name</i>	<i>pseg_name</i>	<i>(x,y) inches or (x,y) pels</i>
<i>lgo_name</i>	<i>pseg_name</i>	<i>(x,y) inches or (x,y) pels</i>
:		

AIOxxx444I The number of highlight color ink references in form *form_name* was *number*.

Ink catalog name	Palette name	Color name
<i>ict_name</i>	<i>palette_name</i>	<i>color_name</i>
<i>ict_name</i>	<i>palette_name</i>	<i>color_name</i>
:		

AIOxxx444I The number of image references in form *form_name* was *number*.

.img name	Page segment name	scaling factor	position
<i>img_name</i>	<i>pseg_name</i>	<i>n/d</i>	<i>(x,y) inches or (x,y) pels</i>
<i>img_name</i>	<i>pseg_name</i>	<i>n/d</i>	<i>(x,y) inches or (x,y) pels</i>
:			

Explanation: This is an informational message that indicates the fonts, logos, images, or highlight color resources that Xerox form *form_name* uses. *x* and *y* are numeric values. *fnt_name* identifies a Xerox font name, *lgo_name* identifies a Xerox logo name, and *img_name* identifies a Xerox image name. If Xerox highlight color resource references were found, *ict_name* identifies an ink catalog, *palette_name* identifies a palette in the catalog, and *color_name* identifies a color in the palette. *AFP_name* identifies the AFP font name (either a coded font name or a character set/code page pair). *pseg_name* identifies the AFP page segment name. *hh* is the hexadecimal value of the trigger character associated with a page segment. *n* and *d* are numeric values for the numerator and denominator of the scaling factor requested for images. The positions shown for logos and images reference the upper left corner of the associated page segments as viewed with the sheet in the portrait orientation. The list of logo references does not include the names of logos that might occur in the internal logo entries for the form, but that are not actually used in the form.

System action: InfoPrint XT processes the resources.

User response: This message requires no user action.

AIOxxx454E The resource utility could not identify AFP resources referenced in overlay *overlay_name* for form *form_name*.

Explanation: The resource utility tried to collect global FRM information for form *form_name*, but it did not determine the list of AFP resources that the FRM requires.

System action: InfoPrint XT continues processing.

User response: Make sure that the AFP overlay is correct. If necessary, reload the Xerox FRM to create both the metrics file and the overlay again. This makes sure that the metrics information and the overlay match the original Xerox resource.

AIOxxx471E The transform could not identify AFP fonts and page segments from form *form_name*. Reload the form to verify resource availability.

Explanation: InfoPrint XT found a reformatted list file

resource_list_name for a form resource in a format that is not at the current level. The file does not include some of the required information.

System action: InfoPrint XT continues processing the job.

User response: Reload the corresponding Xerox form to update the resource list file to the latest format and to create the overlay again.

AIOxxx472E Overlay *overlay_name* does not match the overlay available when the transform converted *resource_list_name*.

Explanation: InfoPrint XT found that overlay *overlay_name* has changed since the last time it was loaded.

System action: InfoPrint XT continues processing the job.

User response: Reload the corresponding Xerox form to make sure that the information in the resource list file *resource_list_name* matches the information in overlay *overlay_name*.

AIOxxx480E Unrecognized parameter: *parameter*.

Explanation: InfoPrint XT did not recognize the input parameter (*parameter*) as a valid parameter.

System action: InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter and reconvert the job.

AIOxxx482E Incorrect numeric argument: *argument*.

Explanation: InfoPrint XT expected a numeric argument in a parameter, but found a nonnumeric argument instead.

System action: InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter. Do the operation that caused the error again.

AIOxxx483W Numeric argument *numeric_argument* is outside the range of permitted values. The transform will use a value of *default_value*.

Explanation: InfoPrint XT expects the parameter (*numeric_argument*) for the job to be numeric. It is not numeric, or the numeric value is too large or too small.

System action: InfoPrint XT replaces the incorrect value with the system default value.

User response: Correct the parameter and reconvert the job.

AIOxxx490E The transform found a relative move in the *dot* | *scan* direction with no preceding absolute move on page *page_number*, logical record *line_number*.

Explanation: Before the print position was established, InfoPrint XT either found characters to print or relative moves in a metacode print control record of a form.

System action: InfoPrint XT ignores the current print control record and continues processing with the next record.

User response: Correct the input form and rerun the failing command.

AIOxxx491W The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font *font_name* on page *page_number*, logical record *line_number*. Of *number* active fonts, *font_name* is number *number* and no graphic fonts were found in the active font list.

AIOxxx491W The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font *font_name* on page *page_number*, logical record *line_number*. Of *number* active fonts, *font_name* is number *number*. Active graphic fonts include *graphic_font1* (number *a*), *graphic_font2* (number *b*), and *graphic_font3* (number *c*).

Explanation: InfoPrint XT found a character-reshaping metacode print control sequence in a form, but a nongraphic font was in effect. The message either indicates that no graphic fonts were active, or lists up to three active graphic fonts.

System action: Processing continues, but graphics might be missing from the output.

User response: Compare the font list in effect to the font list expected at metacode generation. Correct the inconsistency between the font lists and reload the form.

AIOxxx492E A translation error occurred while processing input character *x'input_hex'* at logical record *line_number*. Code page *code_page* did not contain EBCDIC character *x'EBCDIC_hex'*. The transform substituted a blank. The original Xerox font was *font_name*.

Explanation: While processing metacode print controls in a form, InfoPrint XT translated ASCII input character *x'input_hex'* into EBCDIC character *x'EBCDIC_hex'*. However, because this character is not available in code page *code_page*, InfoPrint XT uses a blank in its place. This might occur because of incorrect characters, such

as binary zeros, in a text line in a form. It might also occur if you have manually correlated a Xerox font to an AFP font and the AFP font does not have characters that correspond to some of the characters in the Xerox font. Or, a character translation table was altered so that a character in the job does not map to the correct character in the AFP font.

System action: InfoPrint XT continues processing.

User response: Correct the form or correlation and reload the form.

InfoPrint XT data stream converter messages

This section lists messages that the InfoPrint XT data stream converter can issue and a short explanation of each message.

Many of the messages contain variable data, shown in italics, which InfoPrint XT replaces with specific information when it issues the messages. A vertical bar (|) between portions of variable data means that InfoPrint XT uses only one of the variable-data strings when it issues the message. The error condition determines the variable-data string that InfoPrint XT uses.

The middle three characters of the message identifier indicate the program module that found the error. This section replaces these with the characters *xxx*. These characters are variable and have no meaning to users.

The message indicator ends with a letter that indicates the severity:

- I** Informational. Processing continues. This corresponds to return code 0. InfoPrint XT generates AFP output for the job.
- W** Warning. Processing continues. This corresponds to return code 4. It alerts the user that the converter found a possible problem in the input data stream. However, InfoPrint XT generates AFP output for the job.
- E** Error. InfoPrint XT processing continues. This corresponds to return code 8. This indicates an error that caused InfoPrint XT to complete a default action. The error might or might not prevent InfoPrint XT from generating AFP output for the job.
- S** Severe error. InfoPrint XT processing stops. This corresponds to return code 12. An error that prevented InfoPrint XT from generating AFP output for the job.
- U** Unrecoverable error. InfoPrint XT processing stops. This corresponds to return code 16. An error that prevented InfoPrint XT from generating AFP output for the job.

Note: You can use the **xafprc** conversion parameter to control when InfoPrint XT generates AFP output, based on the return code.

AIOxxx000S Unknown logic error.

Explanation: An unexpected error condition occurred in the parameter parser.

System action: InfoPrint XT cannot process the resource.

| **User response:** If you are converting a Xerox job,
| make sure that the conversion parameters for the job
| are valid. See Appendix A, "Conversion parameters for
| converting Xerox jobs," on page 93. Otherwise, report
| this message to your technical support representative.

AIOxxx000S Unrecognized keyword: *keyword*. Valid keywords are:

keyword:
:
:
keyword

Explanation: The parameter parser found a keyword that it did not recognize.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx001S Specified option for keyword: *keyword* is too long. Maximum length is *length*.

Explanation: The parameter parser found a value for a keyword that is too long.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx002S Unrecognized option for the keyword: *keyword*. Valid options for this keyword are:

option
:
:
option

Explanation: The parameter parser found a keyword value that is not valid.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx003S Value for keyword: *keyword* is out of range. Valid range is *lower_limit* to *upper_limit*.

Explanation: The parameter parser found a keyword value that is not in the range of valid values.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx004S Extra data: *data_string* was found after the file name. Data ignored.

Explanation: The parameter parser found extraneous data among the keywords.

System action: InfoPrint XT cannot process the request.

User response: If you are converting a Xerox job, make sure that the conversion parameters and values for the job are valid. See Appendix A, "Conversion parameters for converting Xerox jobs," on page 93. Otherwise, report this message to your technical support representative.

AIOxxx203S *code_module* could not read parameters due to *error_condition*. Processing cannot continue without correction of a parameter input error.

Explanation: An internal InfoPrint XT error occurred.

System action: InfoPrint XT cannot process the input data stream.

User response: Report this message to your technical support representative.

AIOxxx207I Reading data stream conversion parameters.

Explanation: This is an informational message that identifies the source of the conversion parameters. It requires no user response.

AIOxxx209I The data stream conversion parameters in effect are:

option1 option2 option3 option4

Explanation: This is an informational message that reports the runtime options. It requires no user response.

AIOxxx292U File access error with return code *return_code* occurred during action operation of file *file_name* in the *path_name* path directory or DDNAME:

error_description

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

AIOxxx293I The data stream converter needs Xerox resource *resource_name* for this conversion.

Explanation: InfoPrint XT did not find a required Xerox resource during job conversion.

System action: InfoPrint XT cannot complete the conversion.

User response: Make sure that you load the resource on the system, and that you rerun the job. You might also receive this as an informational message when you scan jobs for required resources.

AIOxxx294W A record in *file_name* was longer than the maximum record length of *nn*. The transform ignored data in bytes beyond the expected length.

Explanation: A logic error occurred while reading from file *file_name*.

System action: InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupt. Make sure that the **xcc** conversion parameter specifies the correct type of carriage control, and that the data stream conversion parameters are correct. Then, do the operation that caused this error again.

AIOxxx298U A program or operating system error has occurred. Internal diagnostic information follows:

error_info *error_info*

Explanation: A logic error occurred. InfoPrint XT supplies a phase name, diagnostic information, or both, to help identify the problem.

System action: The process fails.

User response: Report this message to your technical support representative.

AIOxxx400I Data stream converter processing aborted due to unrecoverable errors.

Explanation: This message occurs when the conversion process ends abnormally. Previous messages give the reason for abnormal end of the process.

AIOxxx404I The data stream converter will process the input file by using *cc_type* carriage control characters.

Explanation: InfoPrint XT examined the job data to determine whether ANSI or IBM3211 control characters were in use. The type of controls found was different from the type expected. *control_type* is either:

- ISO/ANSI/FIPS
- IBM3211 (machine code)

System action: InfoPrint XT continues converting the job.

User response: Check the printed output. If the output is not correct, specify the correct type of carriage control for the job. Use the **xcc** conversion parameter. Then, convert the job again.

AIOxxx407I Reading online / offline JDL query parameters.

Explanation: This is an informational message that indicates that InfoPrint XT has begun to read the online/offline JDL query parameters to determine whether the job is an online or offline job. It requires no user response.

AIOxxx408I Reading reformatted Xerox resource dump parameters.

Explanation: This is an informational message that indicates that InfoPrint XT has begun to read the reformatted Xerox resource dump parameters. It requires no user response.

AIOxxx420S UNDEFINEDFILE condition raised on *name*, ONCODE *number*. Check *name* path or file.

Explanation: InfoPrint XT did not find the input file for the job, or it detected incorrect or conflicting attributes for the file.

System action: The process fails.

User response: If you are submitting a job from disk, check both the path to the file and the spelling of the file name to make sure that the path and file exist. If you are manually converting the job with the **pdxtx2afp** command, also make sure that the **xrcfm** parameter value correctly matches the fixed or variable record format of the input data, and that the **xlrecl** parameter value is in the valid range for the record format. If the problem continues after you have verified the path name, file name, file attributes, and parameter values, report this message to your technical support representative.

AIOxxx421S RECORD condition raised on *file_name*, ONCODE *nn*. Check *file_name* file attributes.

Explanation: The named file (*file_name*) has an incorrect record format (**xrcfm=**) or record length (**xlrecl=**) specified by the conversion parameters for the job.

System action: InfoPrint XT produces no output, or produces incomplete output.

User response: Make sure that the `xcc` conversion parameter specifies the correct type of carriage control, and verify that the data stream conversion parameters are correct. Then, convert the job again.

AIOxxx431E Resource conversion for inline resource *resource_name* ended with return code *nm*. Resource will not be used.

Explanation: InfoPrint XT cannot dynamically load the resource that the message identifies. A FILE DJDE in the job specified the resource.

System action: InfoPrint XT continues processing the job.

User response: To get more information about why the resource did not load, set the `PDXT_AIOLXDFE_TRACE` environment variable to 1. Restart the Windows system to pick up the change. Then, rerun the job and review the messages in the `x2afp.lst` file. Depending on the cause of the problem, you might need to create the Xerox resource and the job data stream again to correct the problem.

AIOxxx453E The transform could not find the overlay *overlay_name* in the AFP resource path and did not process form *resource_list_name*.

Explanation: InfoPrint XT cannot find overlay *overlay_name*. Without the overlay, it also cannot track the resources that the overlay invoked and that the reformatted form resource list file *resource_list_name* listed.

System action: InfoPrint XT continues processing the job.

User response: Make sure that you have loaded or reloaded the overlay correctly.

AIOxxx457E The data stream converter could not create a unique content-sensitive medium map name due to one or more Xerox commands:

command_names

The converter will use a medium map name of *sequential_name* instead of *content_sensitive_name*.

Explanation: The data stream converter found one or more Xerox commands *command_names* in the job that generated a request for a medium map subcommand. The data stream converter cannot represent the medium map subcommand in a content-sensitive medium map name. Content-sensitive medium map names can only represent:

- Duplex or simplex
- Offset stack change or no offset stack change

- The format of the E1 keyword of the MMC structured field
- The input bin number

The converter used the sequentially numbered name *sequential_name* instead of the content-sensitive name *content_sensitive_name*.

System action: InfoPrint XT continues processing the job.

User response: If the job finishes with no other errors, you might be able to print the output if you also specified the `xafprc` conversion parameter with a value of 8 or greater. If you cannot print the output, run the job again and specify `xcsmmname=no`.

AIOxxx470E The data stream converter could not find or validate reformatted Xerox FRM resource *form_name* and will not use fonts from the form.

Explanation: The data stream converter could not read the metrics file for form *form_name* in the reformatted Xerox resource path. The file might not exist, or there might be a problem with the file. InfoPrint XT cannot use any fonts that the form specifies and the printed output might not be correct.

System action: InfoPrint XT continues processing the job.

User response: Reload the form and reconvert the job.

AIOxxx471E The transform could not identify AFP fonts and page segments from form *form_name*. Reload the form to verify resource availability.

Explanation: InfoPrint XT found a reformatted form resource list file *resource_list_name* in a format that is not at the current level. The file does not include some of the required information.

System action: InfoPrint XT continues processing the job.

User response: Reload the corresponding Xerox form to update the resource list file to the latest format and to create the overlay again.

AIOxxx472E Overlay *overlay_name* does not match the overlay available when the transform converted *resource_list_name*.

Explanation: InfoPrint XT found that overlay *overlay_name* has changed since the last time it was loaded.

System action: InfoPrint XT continues processing the job.

User response: Reload the corresponding Xerox form to make sure that the information in the resource list

| file *resource_list_name* matches the information in
| overlay *overlay_name*.

AIOxxx473E The data stream converter detected one or more missing overlays or overlay resources. Data stream conversion to AFPDS may be successful, but the AFP file will not print correctly. Load the missing resources to ensure correct output.

Explanation: The job uses one or more overlays that are missing from the AFP resource library, or one or more reformatted Xerox forms that are missing from the reformatted Xerox resource path.

System action: InfoPrint XT continues processing the job.

User response: Make sure that you have loaded all the Xerox forms for this job, and any fonts, images, or logos that the forms use.

AIOxxx480E Unrecognized parameter: *parameter*.

Explanation: InfoPrint XT did not recognize the input parameter (*parameter*) as a valid parameter.

System action: InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter and reconvert the job.

AIOxxx481E Incorrect JDE/JDL argument: *jdl_argument*.

Explanation: The JDE or JDL name specified in the conversion parameters is either too long or it contains non-alphanumeric characters.

System action: InfoPrint XT uses the system default and continues processing.

User response: Correct the JDE/JDL specification and reconvert the job.

AIOxxx482E Incorrect numeric argument: *argument*.

Explanation: InfoPrint XT expected a numeric argument in a parameter, but found a nonnumeric argument instead.

System action: InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter. Do the operation that caused the error again.

AIOxxx483W Numeric argument *numeric_argument* is outside the range of permitted values. The transform will use a value of *default_value*.

Explanation: InfoPrint XT expects the parameter (*numeric_argument*) for the job to be numeric. It is not numeric, or the numeric value is too large or too small.

System action: InfoPrint XT replaces the incorrect value with the system default value.

User response: Correct the parameter and reconvert the job.

AIOxxx484S The data stream converter could not find reformatted cluster database *clb_name* in the reformatted Xerox resource path.

Explanation: The conversion parameters for the job specified the CLUSTERLIB parameter (*xclb=*), or used the default cluster name, which is **clustr.lib**. However, the cluster database specified in the message does not exist in the reformatted Xerox resource path.

System action: InfoPrint XT continues processing the job.

User response: Correct the name of the cluster database or add the **xclb=none** conversion parameter. Then, reconvert the job.

AIOxxx486S Incorrect parameter: *parameter*.

| **Explanation:** InfoPrint XT did not recognize the input
| parameter (*parameter*) as a valid parameter. Processing
| cannot continue without producing potentially incorrect
| output or resource conversions in FILE DJDE jobs.

| **System action:** InfoPrint XT cannot process the
| request.

| **User response:** Make sure that you specify the correct
| parameter. Then, reconvert the job.

AIOxxx490E The transform found a relative move in the *dot* | *scan* direction with no preceding absolute move on page *page_number*, logical record *line_number*.

Explanation: Before the print position was established, InfoPrint XT found characters to print or relative moves in a metacode print control record.

System action: InfoPrint XT ignores the current print control record and continues processing with the next record.

User response: Correct the input data stream, and rerun the failing command.

AIOxxx491E The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font *font_name* on page *page_number*, logical record *line_number*. Of *number* active fonts, *font_name* is number *number* and no graphic fonts were found in the active font list.

AIOxxx491E The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font *font_name* on page *page_number*, logical record *line_number*. Of *number* active fonts, *font_name* is number *number*. Active graphic fonts include *graphic_font1* (number *a*), *graphic_font2* (number *b*), and *graphic_font3* (number *c*).

Explanation: InfoPrint XT found a character-shaping metacode print control sequence that specified a nongraphic font. The message either indicates that no graphic fonts were active, or lists up to three active graphic fonts.

System action: Processing continues, but graphics might be missing from the output.

User response: Compare the font list in effect with the font list expected at metacode generation. Correct the inconsistency between the font lists and rerun the job.

AIOxxx492E A translation error occurred while processing input character *x'input_hex'* at logical record *line_number*. Code page *code_page* did not contain EBCDIC character *x'EBCDIC_hex'*. The transform substituted a blank. The original Xerox font was *font_name*.

Explanation: While processing metacode print controls, InfoPrint XT translated ASCII input character *x'input_hex'* to EBCDIC character *x'EBCDIC_hex'*. However, because this character is not available in code page *code_page*, InfoPrint XT uses a blank in its place. This might occur because of incorrect characters, such as binary zeros, in the print data stream. It might also occur if you have manually correlated a Xerox font to an AFP font, and the AFP font does not have characters that correspond to some of the characters in the Xerox font.

System action: InfoPrint XT continues processing the job, but the output is not correct.

User response: Correct the input data or correlation, and rerun the job.

AIOxxx493E The data stream converter found no font information for AFP DBCS coded font *font_name*. Characters will print as blanks.

Explanation: InfoPrint XT did not process DBCS information for *font_name*.

System action: InfoPrint XT continues processing the job, but the output is not correct.

User response: Reload the corresponding Xerox font to make sure that the information is available.

AIOxxx500S The data stream converter could not find the image correlation table in the reformatted Xerox resource path, or the table contains no entries.

Explanation: InfoPrint XT requires a Xerox image (IMG) to process the job, but no image correlation records exist in the correlation table. Typically, this is because no IMG resources were loaded, or they were loaded as non-shared resources for a different resource group.

System action: The process fails.

User response: Load the required resource as a shared resource or load it in the correct resource group for the job, and rerun the job. If the problem continues after you load the image, report this message to your technical support representative.

AIOxxx550W The data stream converter ignored a DJDE identifier on record *line_number*: *djde_record*.

Explanation: InfoPrint XT ignored the DJDE record *djde_record*, which it considers to be extraneous. If the DJDE record was a downloadable PDE (FORMAT=*), *djde_record* contains a message that indicates that InfoPrint XT did not use the fonts listed in the downloadable PDE.

System action: InfoPrint XT continues processing the job.

User response: Check the input data stream for any occurrence of consecutive DJDE packets (one or more DJDEs ending with an END;) with no intervening data records. Correct the problem and rerun the job.

AIOxxx562W The data stream converter found a conflicting COLLATE change request.

Explanation: The data stream specified COLLATE=NO, but also specified DUPLEX=YES, which implies COLLATE=YES.

System action: InfoPrint XT processes the data stream using COLLATE=YES.

User response: Make sure of the correct placement of

the COLLATE DJDE in the input file and reconvert the job.

AIOxxx563W The data stream converter ignored an incorrect COLLATE change request.

Explanation: The COLLATE DJDE that InfoPrint XT found is not valid after the first data record of the report.

System action: InfoPrint XT continues processing the job.

User response: Make sure of the correct placement of the COLLATE DJDE in the input file and reconvert the job.

AIOxxx564E *djde_name* - DJDE value *value* is not valid for the specified conversion units.

| **Explanation:** InfoPrint XT cannot process the value
| *value* correctly. For units such as IN (inches) or CM
| (centimeters), InfoPrint XT expects no more than three
| decimal places. For DOTS, InfoPrint XT expects an
| integer value.

| **System action:** InfoPrint XT continues processing the
| job, but the output might not be correct.

| **User response:** Round any decimal values to three
| decimal places, or supply integer values for DOTS.

AIOxxx565E *djde_name* - DJDE value *input* is not valid for a numeric entry field.

Explanation: InfoPrint XT cannot process the value *input* correctly. InfoPrint XT does not process the DJDE (*djde_name*). DJDE naming conventions require a numeric entry with specific rounding values.

System action: InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the value and reconvert the job.

AIOxxx566E *DJDE_keyword* — DJDE *option_name* is not valid.

Explanation: The *option_name* option of the *DJDE_keyword* DJDE is not valid.

System action: InfoPrint XT ignores the DJDE keyword and continues processing.

User response: Correct the DJDE and reconvert the job.

AIOxxx567E The data stream converter found an incorrect copy sensitive change request.

Explanation: A copy-sensitive MODIFY, FORMS, or BFORM change request was made during the processing of the current report. You can only specify

copy-sensitive MODIFY, FORMS, and BFORM commands at the beginning of a report. The program ignores the request. After text has printed on a copy-sensitive report, you can only change a MODIFY, FORMS, or BFORM command to NONE.

System action: InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the request that was made after the beginning of the report and reconvert the job.

AIOxxx568E The data stream converter could not find graphic image *resource_name* in the image correlation table and did not process the *command* DJDE command.

Explanation: The named resource, *resource_name*, was not found. The resource name might be misspelled. The resource might not be loaded on the InfoPrint XT server or it might have been loaded as a resource that belongs to a specific resource group.

System action: InfoPrint XT continues processing the job, but the output might not be correct.

User response: Check the spelling of the resource name. Make sure that the resource has been loaded either as a shared resource or as a resource that belongs to a specific resource group. Then, reconvert the job.

AIOxxx569E The data stream converter found incorrect DJDE command *command*.

Explanation: The listed command (*command*) is not a known DJDE command, or its specification or format is not correct. The program might not process the input.

System action: InfoPrint XT might not continue to process the job.

| **User response:** Correct the command and reconvert
| the job. For SHIFT or XSHIFT DJDEs that are not valid,
| the previous front or back side SHIFT or XSHIFT value
| might remain in effect. The DJDE report provides
| details.

AIOxxx573W Graphic image *image_name* is not active. The data stream converter did not process the *command* command.

Explanation: The data stream converter did not find graphic image *image_name* before it found the ALTER or CANCEL command for the image.

System action: InfoPrint XT might not continue to process the job.

User response: Correct the original Xerox job so that it uses the syntax rules for graphic images. Then, reconvert the job.

AIOxxx574W The data stream converter ignored page-oriented keywords in the DJDE packet on record *number* due to a prior page oriented DJDE on this page.

Explanation: The data stream converter found more than one DJDE packet that contained page-oriented DJDEs on a page. You can only apply one page-oriented DJDE to each page. The converter ignores all packets after the first packet.

System action: InfoPrint XT might not continue to process the job.

User response: Correct the original Xerox job so that it uses the syntax rules for page-oriented DJDEs, and reconvert the job.

AIOxxx575W The data stream converter found a GRAPHIC= DJDE with no options and no preceding IMAGE= DJDE that used option T. The converter discarded the GRAPHIC data for image *image_name*.

Explanation: The GRAPHIC DJDE can document-interleave because it has no parameters other than the image name. However, two inconsistencies exist. First, document-interleaved GRAPHIC DJDEs must occur at the beginning of the job, but InfoPrint XT found this GRAPHIC DJDE after text data. This is where page-interleaved graphics occur. Second, a preceding IMAGE DJDE must reference a page-interleaved GRAPHIC DJDE. InfoPrint XT found no prior matching IMAGE DJDE.

System action: InfoPrint XT continues processing the job, but the output is not correct.

User response: Correct the application that created the data stream so that all document-interleaved GRAPHICs occur at the beginning of the job, and all page-interleaved GRAPHICs are referenced by a preceding IMAGE DJDE.

AIOxxx576E The number of inline graphics exceeded the maximum of 1,000,000. Inline graphics will overlay existing images.

Explanation: InfoPrint XT tracks page segments that correspond to inline graphics using the naming convention SG*nnnnnnn*. *nnnnnnn* is a number from 0 through 999999. If more inline graphics are found than can be tracked using this convention (after SG999999 has been used), InfoPrint XT begins using previous names, starting with SG000000. InfoPrint XT replaces the page segments associated with the reused names.

System action: InfoPrint XT continues processing the job, but the output is not correct.

User response: Reduce the number of inline graphics, or split the job into smaller jobs.

AIOxxx582E FILE - The data stream converter does not support inline files in the 80-byte card image format (file input format parameter C) and may print their contents as unusable data. The converter only supports the LPS format (file input format parameter L).

Explanation: The data stream converter found one or more FILE DJDEs that specify the card image format instead of the required LPS format.

System action: The data stream converter ignores the card-image inline Xerox file or files that follow the FILE DJDE.

User response: Regenerate the FILE DJDE job so that all inline resources are in the LPS format, and that all FILE DJDEs specify a file input format parameter of L. Then, rerun the job.

AIOxxx589E The data stream converter found incorrect font enlargement factors * *enl_vert* * *enl_horiz* on record *record_number* and substituted factors * 1 * 1. Valid factors are 1, 2, 4, 8 or 16.

Explanation: The Xerox LPS does not support DBCS font enlargement factors other than 1, 2, 4, 8, or 16.

System action: InfoPrint XT ignores the specified enlargement factor.

User response: Correct the font enlargement factor. Then, submit the job and convert it again.

AIOxxx590E The data stream converter could not find image *image_name* in the reformatted Xerox resource path.

Explanation: While processing a Xerox data stream, InfoPrint XT determined that the data stream referenced a Xerox IMG, *image_name*, which is not loaded on the system.

System action: InfoPrint XT continues to process the job, but the AFP output that it produces is not correct.

User response: Load the resource identified in the message and resubmit the job.

| **AIOxxx591I** FEED - The data stream converter will
| interpret FEED=*tray_name* as
| FEED=MAIN.

| **Explanation:** While *xclb=none* was in effect, the data
| stream converter found a FEED DJDE that specified
| *tray_name*, which is a name other than MAIN, AUX, or
| OPR. The converter interprets the FEED DJDE as
| FEED=MAIN, and generates AFP that invokes input
| media source 1.

| **System action:** InfoPrint XT continues to process the
| job.

| **User response:** This is an informational message that
| requires no user response.

AIOxxx610E A translation error occurred while processing input character *x'EBCDIC_hex'* (ASCII *x'ASCII_hex'*) at logical record *line_number*. Code page *code_page* did not contain EBCDIC character *x'EBCDIC_hex'*. The data stream converter substituted a blank. The original Xerox font was *font_name*.

Explanation: While processing line data input, InfoPrint XT found that EBCDIC character *x'EBCDIC_hex'* was not available in code page *code_page*. InfoPrint XT uses a blank in its place. This might occur because of incorrect characters, such as binary zeros, in the print data stream. It might also occur if you have manually correlated a Xerox font to an AFP font and the AFP font does not have characters corresponding to some of the characters in the Xerox font. Or, a character translation table was altered so that a character in the Xerox input does not map to the correct character in the AFP font.

System action: InfoPrint XT continues the process, but the output might not be correct.

User response: Correct the input data correlation table or translation record, and reconvert the job.

AIOxxx621S The input data stream file is empty. The data stream converter could not produce printable AFP output.

Explanation: InfoPrint XT did not find any input data in the Xerox job file.

System action: Although InfoPrint XT might produce a small AFP output file to prevent errors, it contains no printable data.

User response: Make sure the job contains data and transfer it to the InfoPrint XT system again.

AIOxxx623E The data stream converter could not find the tiff2afp transform in the current search path.

Explanation: The job contains an inline graphic image that is in the TIFF format, but the data stream converter cannot locate the InfoPrint Manager **tiff2afp** transform.

System action: InfoPrint XT cannot process the inline graphic image.

User response: Either add the path to the **tiff2afp** transform to the current path, or regenerate the Xerox job so that the inline graphics that it contains are in the Xerox Interpress IMG format.

AIOxxx624E The tiff2afp transform returned error code *error_code* while processing inline graphic number *number*.

Explanation: Conversion of an inline TIFF graphic failed. *err_code* is the return code from the **tiff2afp** transform program. *gr_name* uses the naming convention **SGnnnnnnn**. *nnnnnnn* is a number from 0 through 999999. Numbering begins with **SG000000** for the first inline graphic found in the data stream, **SG000001** for the next, and so on.

System action: InfoPrint XT cannot process the inline graphic image.

User response: Verify that the inline graphic is correct. If it is, report this message to your technical support representative.

AIOxxx625E An internal error - *error* - occurred while processing inline graphic number *number*.

Explanation: The data stream converter found an error during inline graphic processing. The error occurred while opening a TIFF image for input, opening a file for **tiff2afp** transform output, or while verifying the header record for the graphic.

System action: InfoPrint XT cannot process the inline graphic image.

User response: Verify that the inline graphic is correct. If it is, report this message to your technical support representative.

AIOxxx626E The image converter returned error code *error_code* while processing inline graphic number *number* ending near record *rec_num*.

Explanation: Conversion of an inline image graphic failed. *err_code* is the return code from the image transform program. *number* uses the naming convention **SGnnnnnnn**. *nnnnnnn* is a number from 0 through 999999. Numbering begins with **SG000000** for the first inline graphic found in the data stream, **SG000001** for the next, and so on. *rec_num* is the approximate record number of the end of the inline graphic image in the input file.

System action: InfoPrint XT continues to process the job, but the output is not correct.

User response: Verify that the inline graphic is correct. If it is, report this message to your technical support representative.

AIOxxx627E A memory allocation error occurred in the image/logo converter while processing inline graphic number *number*.

Explanation: Conversion on an inline image graphic

failed because of insufficient memory. The image graphic uses the naming convention SGnnnnnn. nnnnnn is a number from 0 through 999999. Numbering begins with SG000000 for the first inline graphic found in the data stream, SG000001 for the next, and so on.

System action: InfoPrint XT continues to process the job, but the output is not correct.

User response: Verify that the inline graphic is correct. If it is, report this message to your technical support representative.

AIOxxx628W The data stream converter found an incorrect or unsupported Xerox file type in downloadable file *file_name.file_ext* (internal name x'*hex_name*') on record *record_number*. The file will print as data.

Explanation: The InfoPrint XT data stream converter expected to find a valid Xerox resource file name and extension, but found a string that it did not recognize instead.

System action: InfoPrint XT ignores the record and continues processing.

User response: This message might indicate that a job that downloads resources through FILE DJDEs is corrupted. Verify that all resources that were copied from the job to the Xerox resource directory were processed successfully. If the input file is corrupt, correct the error or errors, regenerate the file, and rerun the job.

AIOxxx629E The data stream converter did not find the expected end of an inline graphic on record *line_number*. Inline graphic number *graphic_number* may be corrupt. The graphic and data that follows it may not print correctly.

Explanation: While processing an inline graphic in an offline job, InfoPrint XT did not find the end of the graphic where it was expected. The graphic might have been created incorrectly, it might have data missing, or it might be otherwise corrupted. While searching for the end of the graphic, InfoPrint XT might have read through some of the data that immediately follows the graphic, causing incorrect output.

System action: InfoPrint XT continues to process the job, but the output is not correct.

User response: Correct the problem with the format of the graphic and reconvert the job.

AIOxxx690W The data stream converter found no 'END;' DJDE command before the end of the report.

Explanation: InfoPrint XT found the end of a report before it found a DJDE record that contained the END; command. InfoPrint XT does not process DJDEs that it

finds after the end of the report.

System action: InfoPrint XT continues to process the job.

User response: Add an END; command at the correct location in the input data stream and reconvert the job.

AIOxxx691W The data stream converter could not print an accounting page due to a font processing error.

Explanation: The data stream converter uses Xerox font **p0612c.fnt** to print accounting pages. It did not find the font.

System action: No accounting page prints.

User response: Load the **p0612c.fnt** font from your Xerox printer so that InfoPrint XT can access it.

AIOxxx710W The data stream converter collected *sheet_count* sheets for stapling. This total may be outside the range of supported values for the target printer.

Explanation: Although Xerox LPS printers support an NTO1 value of 1 through 32767 for stapling, data stream conversion might not produce the results that you want if the target printer does not support the value.

System action: The data stream converter processes the data stream as it is, regardless of whether the target printer is capable of stapling the output as specified.

User response: Verify that the job output is correct. If the target printer cannot staple as many sheets as requested, consider overriding the JDL NTO1 value by specifying the **xstaplemax** conversion parameter. Specify a value for the parameter that is consistent with the hardware stapling capabilities of the printer. For more information about limitations, see the printer documentation.

AIOxxx711W The data stream converter collected *sheet_count* sheets for stapling, but the NTO1 maximum is *NTO1_value*. The converter disabled stapling for the current report.

Explanation: The number of report sheets collected for stapling either exceeds the limit that the NTO1 command in the current JDL/JDE specifies, or the limit that the **xstaplemax** conversion parameter specifies.

System action: The data stream converter processes the data stream, but the AFP generated for the report does not include stapling commands.

User response: Verify that the job output is correct. Then, specify the **xstaplemax** conversion parameter with a value that is large enough to include all the sheets in the report and reconvert the job.

AIOxxx712W XHONORSTAPLE is in effect, but reformatted JDL *jdl_name*/JDE *jde_name* does not include stapling information. The converter disabled stapling for the current report.

Explanation: Although you requested that InfoPrint XT process Xerox stapling commands, you did not reload the JDL and JDE pair in effect after stapling support became available in InfoPrint XT. Because InfoPrint XT cannot determine whether the original JDL and JDE pair specified STAPLE=YES, NTO1=YES or NTO1=*n*, or FACEUP=YES, it uses STAPLE=NO. InfoPrint XT does not include stapling commands in the AFP that it generates for this report.

System action: InfoPrint XT continues to process the job, but the printer does not staple the pages in the current report.

User response: You must reload the JDL that the job uses for InfoPrint XT to process stapling commands. After you reload the JDL, reconvert the job.

AIOxxx720E A text placement item specified font number *number*, but the maximum number of fonts per page is 128.

Explanation: One page specified more than 128 fonts.

System action: InfoPrint XT cannot process the request.

User response: Check the font list in effect at the time to make sure that no more than 128 fonts requests are present, and reconvert the job.

AIOxxx721S A text placement item specified font number *font_number*, but the number in the active font list is *font_maximum*.

Explanation: InfoPrint XT tried to process AFP text placement items using the wrong font list.

System action: InfoPrint XT cannot process the request.

User response: Contact your technical-support representative.

AIOxxx760E The font processor could not find font *font_name* in the font correlation table.

Explanation: InfoPrint XT did not find entries for the named font in the correlation tables located in the reformatted Xerox resource path. The font correlation tables are **tab.aft** and **tab.sft**.

System action: InfoPrint XT cannot process the request.

User response: Use the **pdxloadres** command to load the font identified in the message.

AIOxxx761S No fonts available to print text.

Explanation: The data stream converter did not find one or more fonts in the font correlation table, so no default text font was available for printing text.

System action: InfoPrint XT cannot process the request.

User response: Make sure that the DJDEs in the Xerox data stream or the JDEs used to process the data stream contain valid font lists. Make sure that you load all fonts specified by the font lists. Then, reconvert the job, or load a default text font and reconvert the job.

AIOxxx762E The font processor could not find reformatted font *font_name* in the reformatted Xerox resource path.

Explanation: InfoPrint XT did not find the metrics file for the named font in the reformatted Xerox resource path. It was looking for *font_name.afm*.

System action: InfoPrint XT cannot process the request.

User response: Use the **pdxloadres** command to load the font identified in the message.

AIOxxx763E The font processor could not find font resource *resource_name* in the AFP resource path.

Explanation: While loading a form, InfoPrint XT did not find the AFP font listed in the message.

System action: InfoPrint XT continues to process the job and tries to use the first correctly defined font as a replacement.

User response: If you manually updated the resource correlation table, make sure the correlation record is correct, the font exists, and the font is accessible to InfoPrint XT. If the AFP font is a font that InfoPrint XT created from a Xerox font, reload the Xerox font. If the problem continues or if the font was supplied by InfoPrint Solutions Company, report this message to your technical support representative.

AIOxxx764E Font resource *resource_name* has an incorrect format.

Explanation: The AFP font resource identified in the message has an internal structure that is not valid.

System action: InfoPrint XT continues to process the job, and tries to use the first correctly defined font as a replacement.

User response: If the font is a custom AFP font, a problem might have occurred during its transfer to the system. Make sure that you download or copy the resource in binary format. If the font is an InfoPrint Solutions Company-supplied font or a font that

InfoPrint XT created from a Xerox font, report this message to your technical support representative.

AIOxxx766S The font processor could not find character translation table *table_name* in the reformatted Xerox resource path.

Explanation: InfoPrint XT did not locate the character translation table identified in the message in the reformatted Xerox resource path.

System action: The process fails.

User response: If you manually updated the resource correlation table, this can indicate a syntax error in the correlation record. Make sure that the correlation record is correct and rebuild the correlation table. Otherwise, this indicates an internal error in InfoPrint XT. Report this message to your technical support representative.

AIOxxx767E Font resource *resource_name* does not contain a required character rotation.

Explanation: An AFP font resource is incomplete.

System action: InfoPrint XT cannot process the resource.

User response: Reload the corresponding Xerox resource.

AIOxxx768S The font processor could not find the font correlation table in the reformatted Xerox resource path, or the table contains no entries.

Explanation: InfoPrint XT did not locate any font correlation in the reformatted Xerox resource path.

System action: The process fails.

User response: Make sure that you load at least one font. Then, enter the command or do the task again.

AIOxxx769E Character ID *character_id* (EBCDIC code point x'EBCDIC_hex') in code page *code_page* is not in character set *character_set*. The original Xerox font was *font_name*, correlated to coded font *coded_font*.

AIOxxx769E Character ID *character_id* (EBCDIC code point x'EBCDIC_hex') in code page *code_page* is not in character set *character_set*. The original Xerox font was *font_name*.

Explanation: Code page *code_page* and character set *character_set* do not match for character ID *character_id*.

System action: The process fails.

User response: If you manually updated the resource correlation table, you have specified an incompatible

code page and character set. Correct the correlation record and rebuild the correlation table. Then, reconvert the job. Otherwise, if the font was supplied by InfoPrint Solutions Company or if it is a font that InfoPrint XT created from a Xerox font, report this message to your technical support representative.

AIOxxx770S A resource processor could not find reformatted JDL *name* in the reformatted Xerox resource path.

Explanation: InfoPrint XT cannot locate the JDL specified in the message.

System action: The process fails.

User response: Make sure that you specify the correct location for the JDL resource when you submit the job. Also make sure that you have loaded the JDL on the system. Make sure that you have spelled the name of the JDL correctly. The name is case-sensitive. After correcting the problem, submit the job again.

AIOxxx771S A resource processor could not find JDE *jde_name* in the reformatted *jdl_name* JDL.

Explanation: The program did not find JDE *jde_name* in JDL *jdl_name*.

System action: The process fails.

User response: Make sure that the JDE and JDL names are correct and spelled correctly. Make sure that the correct version of the JDL was loaded on the InfoPrint XT system in the common resource library or in a resource group available to the job. Then, reconvert the job.

AIOxxx772E A resource processor could not find *cl_type* cluster name *cl_name* in reformatted cluster database *clb_name* during processing of STOCKSET internal to JDL *jdl_name*/JDE *jde_name*.

AIOxxx772E A resource processor could not find *cl_type* cluster name *cl_name* in reformatted cluster database *clb_name* during processing of external STOCKSET *stk_name* in JDL *jdl_name*/JDE *jde_name*.

Explanation: The STOCKSET that InfoPrint XT was processing refers to a cluster entry, *cl_name*, which does not exist in cluster database *clb_name*. *cl_type* can be INIFEED, SYSPAGE, or ASSIGN.

System action: The process fails.

User response: Verify that the job specifies the correct STOCKSET and that the *xclb* conversion parameter specifies the correct cluster database. Then, reconvert the job.

AIOxxx773E A resource processor could not find *cl_type* cluster name *cl_name* in reformatted cluster database *clb_name* during processing of STOCKSET *stk_name* in DJDE packet ending on record *record_number*.

Explanation: A stock reference in a FEED DJDE or in the STOCKSET *clb_name* during processing of external STOCKSET *stk_name* invoked by the STOCKS DJDE is correlated to a cluster entry, *cl_name*, which does not exist in cluster database *clb_name*. *cl_type* can be FEED for the FEED DJDE, or INIFEED, SYSPAGE, or ASSIGN for the STOCKS DJDE.

System action: The process fails.

User response: Verify that the job correctly specifies the STOCKSET, FEED DJDE, and cluster database. Then, reconvert the job.

AIOxxx774E The data stream converter could not find FEED cluster name *cl_name* in reformatted cluster database *clb_name* during processing of DJDE packet ending on record *record_number*.

Explanation: A cluster name in a FEED DJDE has no corresponding entry in cluster database *clb_name*. InfoPrint XT ignores the FEED DJDE.

System action: The process fails.

User response: Verify that the job specifies the correct FEED DJDE and the correct cluster database. Then, reconvert the job.

AIOxxx775S Processing terminated due to unsupported *BLOCK* | *RECORD* command *function* | *functions* found in JDL *jdl_name* | *jde_name*:

function1 function2 function3

Explanation: InfoPrint XT cannot process the job because it uses the unsupported function *FORMAT*=BIN, *LMULT*=1, or *ZERO*=YES.

System action: The process fails.

User response: If the JDL/JDE is essential to printing operations, report this message to your technical support representative.

AIOxxx776E The data stream converter could not find FEED cluster name *cl_name* in reformatted cluster database *clb_name* during processing of JDL *jdl_name*/JDE *jde_name*.

Explanation: A FEED command in a JDE/JDL refers to a cluster, *cl_name*, which has no corresponding entry in cluster database *clb_name*.

System action: InfoPrint XT ignores the FEED command.

User response: Verify that the *xjdl* and *xjde* conversion parameters for the job specify the correct JDL and JDE. Also, make sure that the *xclb* conversion parameter specifies the correct cluster database. Then, reconvert the job.

AIOxxx777E The data stream converter could not find FEED stock reference *stk_ref* in STOCKSET *stk_name* during processing of DJDE packet ending on record *record_number*.

AIOxxx777E The data stream converter could not find FEED stock reference *stk_ref* in STOCKSET internal to a JDL/JDE during processing of DJDE packet ending on record *record_number*.

AIOxxx777E The data stream converter could not find FEED stock reference *stk_ref* in STOCKSET *stk_name* invoked by a JDL/JDE during processing of DJDE packet ending on record *record_number*.

Explanation: Stock reference *stk_ref* in a FEED DJDE has no corresponding entry in the STOCKSET identified in the message.

System action: InfoPrint XT ignores the FEED DJDE.

User response: Verify that the *xjdl* and *xjde* conversion parameters for the job specify the correct JDL and JDE, and that the STOCKSET is correct. Then, reconvert the job.

AIOxxx778E The data stream converter could not find FEED stock reference *stk_ref* in an internal STOCKSET during processing of JDL *jdl_name*/JDE *jde_name*.

AIOxxx778E The data stream converter could not find FEED stock reference *stk_ref* in external STOCKSET during processing of JDL *jdl_name*/JDE *jde_name*.

Explanation: A FEED command in a JDL/JDE specifies a stock reference, *stk_ref*, which has no corresponding entry in STOCKSET *stk_name*.

System action: InfoPrint XT ignores the FEED command.

User response: Verify that the *xjdl* and *xjde* conversion parameters for the job specify the correct JDL and JDE, and that the STOCKSET is correct. Then, reconvert the job.

AIOxxx779E FEED command in DJDE packet ending on record *record_number* specified stock reference *stk_ref*, but no STOCKSET is in use; the data stream converter cannot resolve the stock reference.

Explanation: A FEED DJDE specifies a stock reference, *stk_ref*, but no STOCKSET is in effect. InfoPrint XT ignores the FEED DJDE command.

System action: InfoPrint XT ignores the FEED DJDE and pulls paper from the main bin.

User response: Verify that the job specifies the correct FEED DJDE and the correct STOCKSET. Then, reconvert the job.

AIOxxx780E FEED command in JDL *jdl_name*/JDE *jde_name* specified stock reference *stk_ref*, but no STOCKSET is in use; the data stream converter cannot resolve the stock reference.

Explanation: A FEED command in a JDL/JDE specifies a stock reference, *stk_ref*, but no STOCKSET is in effect.

System action: InfoPrint XT ignores the FEED command.

User response: Verify that the *xjdl* and *xjde* conversion parameters for the job specify the correct JDL and JDE, and that the STOCKSET is correct. Then, reconvert the job.

AIOxxx781E A resource processor could not find reformatted *resource_type* resource *resource_name* in the reformatted Xerox resource path.

Explanation: *resource_type* can be CME, PDE, STK, or TST. InfoPrint XT did not find the named resource *resource_name* in the reformatted Xerox resource directory.

System action: InfoPrint XT ignores the reformatted resource and continues processing the job.

User response: Verify that the spelling of the resource name is correct, and that you have loaded the resource as a common resource or as a resource that belongs to a specific group. Then, make sure that the path to the resource is available to InfoPrint XT and reconvert the job.

AIOxxx790E Correlation of Xerox DBCS font *font_name* to non-DBCS AFP font resource *resource_name* is not valid.

Explanation: During AFP font processing, InfoPrint XT found a correlation between a Xerox DBCS font and an AFP single-byte font. InfoPrint XT does not support this type of correlation.

System action: InfoPrint XT cannot process the font.

User response: Correct the entry in the font correlation table so that the correlation is between a Xerox DBCS font and an AFP DBCS outline font. Then, rebuild the font correlation table.

AIOxxx791E Reformatted font information for Xerox font *font_name* is incomplete. Reload the resource to extract and store DBCS information.

Explanation: During AFP font processing, InfoPrint XT determined that the reformatted Xerox font metrics file for *font_name* does not contain DBCS information.

System action: InfoPrint XT cannot process the font.

User response: Reload the Xerox DBCS font. Then, reconvert the job.

AIOxxx792E Font processing found a reference to Xerox DBCS font *font_name*, but *option* is in effect. DBCS mode requires XRESOLUTION=300.

Explanation: During AFP font processing, InfoPrint XT found a reference to Xerox DBCS font *font_name*, but it also found an *xresolution* value other than 300.

System action: InfoPrint XT cannot process the font.

User response: Correct the resolution specification so that it specifies 300-pel resolution.

Appendix E. DJDE report messages: ALTER through XMP

This section lists the possible messages that you might see in the Dynamic Job Descriptor Entry (DJDE) report generated by InfoPrint XT for Windows (InfoPrint XT), and includes a short explanation of each message. These messages can occur in any order in the DJDE report; they are listed in alphabetic order by DJDE name here. If the DJDE report contains a message with the **AIOxxxxmms** format, you can find its explanation in “InfoPrint XT data stream converter messages” on page 132.

Many of the messages in the DJDE report contain variable data, shown in italics, which InfoPrint XT replaces with specific information when it issues the messages. A vertical bar (|) between portions of variable data means that InfoPrint XT uses only one of the variable-data strings when it issues the message.

Notes:

1. Any value that specifies inches as a unit of measure can have up to three decimal places.
2. The default is that InfoPrint XT does not produce a DJDE report when it converts Xerox data streams. To generate a DJDE report, you must include the **xrptfile** conversion parameter when you submit the job. For more information about using the **xrptfile** conversion parameter, see page 100.
3. For a list of supported and unsupported DJDE commands, see “Supported and unsupported Xerox DJDE and PDL commands” on page 8.

ALTER - New position for *img_name* IMG (page segment *pseg_name*) is (*x,y*) inches or (*x,y*) pels. The requested graphic scaling factor was *number*.

Explanation: Specifies the new imaging parameters for a previously defined reference image. *img_name* identifies the Xerox IMG file. *pseg_name* identifies the Advanced Function Presentation (AFP) page segment. *x* and *y* are numeric values. *x* represents the horizontal coordinate. *y* represents the vertical coordinate. InfoPrint XT only includes the second sentence of the message when the scaling factor is a number other than 1.

ASSIGN - The data stream converter made the following channel to line assignments: *ch_number* to line(s) *line_num1* ... *line_numN*.

Explanation: Specifies the VFU channel-to-line-number assignments. *ch_number* is the channel number. *line_num1* through *line_numN* specify the line numbers assigned to this channel.

BATCH - The data stream converter does not support batch mode graphics. Parameter was *START* | *END*.

Explanation: The job specified processing for online banner pages and batch-mode graphics. InfoPrint XT

does not support *BATCH=START* or *BATCH=END*.

BEGIN - The new page position is (*x,y*) inches or (*x,y*) pels.

Explanation: Specifies the starting position of one or more logical pages. *x* and *y* are numeric values. *x* represents the horizontal coordinate. *y* represents the vertical coordinate.

BFORM - Overlay *overlay_name* will appear on the back of subsequent sheets.

Explanation: When used with *DUPLEX=YES*, this message specifies that a form prints on the back side of the page. *overlay_name* identifies the AFP overlay that prints.

BFORM - The following overlays will appear on the back of subsequent sheets.

Overlaycopy ply
overlay1x to *y*
⋮
overlayNx to *y*

Explanation: This message only occurs when the job specifies copy-sensitive forms. *overlay1* and *overlayN* identify the AFP overlays. *x* and *y* are numeric values.

BFORM - No overlay will appear on the back of subsequent sheets.

Explanation: A BFORM=NONE DJDE cancelled a previous BFORM DJDE.

BOF - The new bottom of form line number is *number*.

Explanation: Specifies that *number* is the line number of the bottom of the form.

C - The data stream converter found a comment DJDE.

Explanation: A comment DJDE is present.

CANCEL - The data stream converter will no longer automatically image the following graphics on each page:

*.img name*Page segment name
*img_name*pseg_name

Explanation: Specifies cancellation of automatic graphic imaging. *img_name* identifies the Xerox IMG file. *pseg_name* identifies the corresponding AFP page segment.

COLLATE - The data stream converter will | will not collate multi-copy reports.

Explanation: Specifies whether InfoPrint XT collates the reports.

COPIES - The number of *report* | *sheet* copies will be *number*.

Explanation: Specifies whether the copies are *report* copies or *sheet* copies, and specifies the total *number* of copies.

DATA - Printable data now begins at byte *x* and continues for up to *y* bytes.

Explanation: Specifies the beginning location of the printable data in the input record and the length of the printable information. *x* and *y* are integer values.

DEPT - The department name for account billing is *dept_name*.

Explanation: Specifies the *dept_name* to associate with accounting information.

DJDE - The data stream converter found a DJDE identifier on record
line_number:djde_record.

Explanation: Specifies that *line_number* contains one or more DJDEs (*djde_record*).

| **Note:** There is no DJDE with the name DJDE. The
| message title is for explanation retrievability
| only.

DUPLEX - The print mode will be *duplex* | *simplex*.

Explanation: Specifies whether the print mode is *duplex* or *simplex*.

END - The data stream converter found an END; DJDE.

Explanation: An END; DJDE is present in the job data.

FEED - The input tray will be *auxiliary* | *main*.

Explanation: Specifies the tray that contains the medium on which the job prints.

FEED - The data stream converter does not support the *tray_name* option.

Explanation: When you specify **xclb=none**, InfoPrint XT issues this message when it finds FEED DJDE values (*tray_name*) other than MAIN, AUX or OPR. It uses the MAIN input tray in the generated AFP. Verify that you specified the correct value for the **xclb** conversion parameter. Also, make sure that the value of the FEED command in the job is correct.

FEED - The input media source will be tray *mmc_tray*.

Explanation: You specified a valid cluster database. InfoPrint XT indicates the number of the input tray with *mmc_tray*.

FEED - The input media source will be INIFEED tray *mmc_tray*.

Explanation: You specified a valid cluster database. InfoPrint XT indicates the number of the input tray with *mmc_tray*. If InfoPrint XT finds a STOCKS DJDE, but the DJDE packet does not specify FEED, it uses the INIFEED tray.

FONTINDEX - The data stream converter will no longer use table reference characters.

Explanation: Specifies that the job contains a FONTINDEX= NONE DJDE, and that the data stream converter no longer uses table reference characters to select fonts.

FONTINDEX - The data stream converter will interpret data bytes at offset *x* as table reference characters, which number the fonts from *number* and contain font references in the low-order *z* bits.

Explanation: Specifies that the job contains a FONTINDEX DJDE, and identifies the location and the numbering of the font indexes that the data stream converter uses. *x*, *y*, and *z* are integer values.

FORMAT - font *font_name* does not meet naming requirements.

Explanation: The name of the Xerox font, *font_name*, is not in the correct format. Xerox font names must not exceed 6 characters and can include only uppercase alphabetic characters, numeric characters, and the dollar sign (\$).

FORMAT - The number of fonts listed was *number*.

.fnt name	AFP name(s)	line spacing value
<i>fnt_name</i>	<i>afp_name</i>	<i>x inches or y pels</i>
<i>fnt_name</i>	<i>afp_name</i>	<i>x inches or y pels</i>
.		

Explanation: Specifies the fonts that the job lists. *x* and *y* are numeric values. *fnt_name* identifies the Xerox font name. *afp_name* identifies the corresponding AFP font name, which is either a coded font name or a character set and code page pair.

FORMAT - font *font_name* does not meet naming requirements.

Explanation: The name of the Xerox font, *font_name*, is not in the correct format. Xerox font names must not exceed 6 characters and can include only uppercase alphabetic characters, numeric characters, and the dollar sign (\$).

FORMAT - The new page positions are:

(x,y) inches or (x,y) pels

Explanation: A new PDE has changed the page positions at a specific offset in the job. The message lists the new positions.

FORMAT - The number of fonts listed was *x*.

.fnt name	AFP name(s)	line spacing value
<i>fnt_name</i>	<i>afp_name</i>	<i>x inches or y pels</i>
<i>fnt_name</i>	<i>afp_name</i>	<i>x inches or y pels</i>
.		

Explanation: *x* and *y* are numeric values. *fnt_name* identifies the Xerox font name. *afp_name* identifies the corresponding AFP font name, which is either a coded font name or a character set and code page pair.

FORMAT - A DJDE referenced PDE *pde_name*, which contained the following information:

The print mode will be
portrait | landscape.
The number of fonts listed was *x*.

.fnt name	AFP name(s)	line spacing value
<i>fnt_name</i>	<i>afp_name</i>	<i>x inches or y pels</i>
<i>fnt_name</i>	<i>afp_name</i>	<i>x inches or y pels</i>
.		

The new page position is *(x,y)* inches or *(x,y)* pels.

Explanation: The job invoked a PDE. *pde_name* identifies the name of the PDE. InfoPrint XT indicates whether this PDE is *landscape* or *portrait*. *fnt_name* identifies the name of the Xerox font. *afp_name* identifies the corresponding AFP font name, which is either a coded font name or a character set and code page pair. *m* and *n* are numeric values. *x* and *y* are numeric values that represent the horizontal coordinate and the vertical coordinate.

FORMS - No overlay will appear on the front of subsequent sheets.

Explanation: Specifies that no overlay prints on the front of subsequent pages. This might be an informational message, or it might indicate that an internal error exists in the job, such as two DJDE packets set to take effect at the same time.

FORMS - Overlay *overlay_name* will appear on the front of subsequent sheets.

Explanation: The FORMS DJDE specifies one form and specifies either SIMPLEX or BFORM. *overlay_name* identifies the AFP overlay that prints on the front of subsequent sheets.

FORMS - Overlay *overlay_name* will appear on both sides of subsequent sheets.

Explanation: The FORMS DJDE only specifies one form. *overlay_name* identifies the AFP overlay that prints on both sides of the sheet.

FORMS - The following overlays will appear on the front of subsequent sheets.

Overlaycopy ply
overlay_name1x to y
⋮
overlay_nameNx to y

Explanation: This message occurs when the job specifies copy-sensitive forms and either SIMPLEX or BFORM. *overlay_name1* through *overlay_nameN* identify the names of the AFP overlays. *x* and *y* are integer values.

GRAPHIC - The data stream converter found graphic image *img_name* (page segment *pseg_name*) imbedded in data stream. The image position is (*x,y*) inches or (*x,y*) pels. The converter will | will not automatically image the graphic on each page. The requested graphic scaling factor was *x*.

Explanation: *img_name* identifies the Xerox IMG file. *pseg_name* identifies the AFP page segment. *x* and *y* are numeric values. *x* represents the horizontal coordinate. *y* represents the vertical coordinate. InfoPrint XT indicates whether it automatically prints the graphic on each page. InfoPrint XT only includes the second sentence of the message when the scaling factor is a number other than 1.

ICATALOG - The data stream converter does not support the ICATALOG DJDE.

Explanation: An ICATALOG DJDE, which InfoPrint XT does not support, is present.

IDFAULT - The data stream converter does not support the IDFAULT DJDE.

Explanation: An IDFAULT DJDE, which InfoPrint XT does not support, is present.

IDR - The data stream converter does not support the IDR DJDE.

Explanation: An IDR DJDE, which InfoPrint XT does not support, is present.

ILIST - The data stream converter does not support the ILIST DJDE.

Explanation: An ILIST DJDE, which InfoPrint XT does not support, is present.

IMAGE - A DJDE referenced graphic image *img_name* (page segment *pseg_name*). The image position is (*x,y*) inches or (*x,y*) pels. The converter will | will not automatically image the graphic on each page. The requested graphic scaling factor was *x*.

Explanation: *img_name* identifies the Xerox IMG file. *pseg_name* identifies the AFP page segment. *x* and *y* are numeric values. *x* represents the horizontal coordinate. *y* represents the vertical coordinate. InfoPrint XT indicates whether it automatically prints the graphic on each page. InfoPrint XT only includes the second sentence if the scaling factor is a number other than 1.

INKINDEX - The data stream converter does not support the INKINDEX DJDE.

Explanation: An INKINDEX DJDE, which InfoPrint XT does not support, is present.

| **INVERT -** The data stream converter will ignore INVERT DJDEs.

| **Explanation:** The data stream converter found an INVERT DJDE, but the conversion parameters include **xhonorinvert=no**. **xhonorinvert=no** is the default. InfoPrint XT does not invert the output.

| **INVERT -** The data stream converter will invert output on the front sides of subsequent sheets.

| **Explanation:** Specifies that front-side printing is inverted. Back-side printing is not inverted.

| **INVERT -** The data stream converter will invert output on the back sides of subsequent sheets.

| **Explanation:** Specifies that back-side printing is inverted. Front-side printing is not inverted.

| **INVERT -** The data stream converter will invert output on the both sides of subsequent sheets.

| **Explanation:** Specifies that front-side and back-side printing is inverted.

| **INVERT -** The data stream converter will not invert output on subsequent sheets.

| **Explanation:** Specifies that front-side and back-side printing is not inverted.

IRESULT - The data stream converter does not support the IRESULT DJDE.

Explanation: An IRESULT DJDE, which InfoPrint XT does not support, is present.

ITEXT - The data stream converter does not support the ITEXT DJDE.

Explanation: An ITEXT DJDE, which InfoPrint XT does not support, is present.

JDE - A DJDE referenced Job Descriptor Entry *jde_name*.

Explanation: The name of the JDE in use, which is *jde_name*.

JDL - A DJDE referenced Job Descriptor Library *jdl_name*.

Explanation: The name of the JDL file, which is *jdl_name*.

MARGIN - The left margin will be *position_count* positions.

Explanation: InfoPrint XT calculates the left margin by multiplying *position_count* by the average character width of the font in effect.

MARGIN - The left margin will be *x* inches or *y* pels.

Explanation: This message occurs when the job specifies a left margin in terms of inches or centimeters, rather than positions. *x* and *y* are numeric values. InfoPrint XT uses pels as the unit of measure.

MODIFY - The data stream converter will not apply a CME to the input data.

Explanation: No copy modifications are in effect, starting at the point in the job where InfoPrint XT found this DJDE.

MODIFY - The data stream converter will apply CME *cme_name* to the input data.

Explanation: The input data invoked a CME that is not copy-sensitive to do copy modifications. *cme_name* identifies the name of the CME in effect.

MODIFY - The data stream converter will apply the following CMEs:

CME name	copy ply
<i>cme_name</i>	<i>x to y</i>

⋮
cme_name *x to y*

Explanation: The input data invoked one or more copy-sensitive CMEs to do copy modifications. *cme_name* identifies the CME file. *x* and *y* are integer values.

NUMBER - The data stream converter will not number output pages.

Explanation: The job contains a NUMBER=NO DJDE. InfoPrint XT does not number pages.

NUMBER - The data stream converter will number output pages by using font *fontname*. The first page number will be *x*. The page number appears on line *y*. The page number ends in column *z*. The page number appears on line *y* and ends in column *z*.

Explanation: The job contains a NUMBER DJDE that defines the numbering of the output pages. InfoPrint XT might report the location of the page number as line *y*, column *z*, or both. *x*, *y*, and *z* are integer values.

OVERPRINT - The data stream converter will *print* | *ignore* | *merge* overprint lines.

Explanation: Specifies whether the OVERPRINT option is PRINT, IGNORE, or MERGE.

OVERPRINT - The data stream converter will print only the first line in each group of overprint lines.

Explanation: Specifies that the OVERPRINT option is PRINT2.

PALETTE - The data stream converter does not support the PALETTE DJDE.

Explanation: A PALETTE DJDE, which InfoPrint XT does not support, is present.

PMODE - The print mode will be *portrait* | *landscape*.

Explanation: Specifies whether the print mode is *portrait* or *landscape*.

RAUX - The data stream converter selected the alternate paper source.

Explanation: Specifies that InfoPrint XT pulls one sheet from the alternate paper tray.

RFORM - Overlay *overlay_name* will appear on the front of routing text pages.

Explanation: Specifies that the AFP overlay *overlay_name* will print on all RTEXT pages.

ROFFSET - The data stream converter will offset the current sheet.

Explanation: An ROFFSET statement is present. InfoPrint XT offsets the current sheet.

RPAGE - The current logical page will move to the *front* | *back* of a new sheet.

Explanation: This message occurs when the job specifies RPAGE WHEN=TOP and the SIDE= parameter forces the start of a new sheet. InfoPrint XT indicates whether the page moves to the *front* or *back*.

RPAGE - The current logical page will move to the back of the current sheet.

Explanation: This message occurs when a specification of SIDE=NEXT or SIDE=BACK forces output to the back of the current sheet.

RPAGE - The next logical page will begin on the *front* | *back* of a new sheet.

Explanation: This message occurs when the job specifies RPAGE WHEN=BOTTOM and the SIDE= parameter forces the start of a new sheet. InfoPrint XT indicates whether the page begins on the *front* or the *back* of the sheet.

RPAGE - The next logical page will begin on the back of the current sheet.

Explanation: This message occurs when a specification of SIDE=NEXT or SIDE=BACK does not force a new sheet.

RPAGE - The remaining text for the logical page will move to the *front* | *back* of a new sheet.

Explanation: This message occurs when the job specifies RPAGE WHEN=NOW and the SIDE= parameter forces the start of a new sheet. InfoPrint XT indicates whether the remaining text moves to the *front* or *back* of a new sheet.

RPAGE - The remaining text for the logical page will move to the back of the current sheet. The data stream converter *will* | *will not* offset the page.

Explanation: This message occurs when a specification of SIDE=NEXT or SIDE=BACK does not force a new

sheet. InfoPrint XT indicates whether the page offsets.

RRESUME - Printing will resume. The RRESUME record *will* | *will not* print.

Explanation: Specifies whether the current record prints when printing resumes.

RSTACK - The data stream converter found the end of the current report. The RSTACK record *will* | *will not* print.

Explanation: The starting print environment is now in effect. The message specifies whether the RSTACK record prints.

RSUSPEND - The data stream converter will suspend printing until it finds the end of report or an RRESUME record. The RSUSPEND record *will* | *will not* print.

Explanation: Specifies whether print retention starts with the current record.

RTEXT - A DJDE provided the following routing text information:

Report copy	line no.	column no.	Xerox font name	AFP name(s)
<i>copy_num</i>	<i>line_num</i>	<i>column_num</i>	<i>xrx_name</i>	<i>afp_name</i>
<i>copy_num</i>	<i>line_num</i>	<i>column_num</i>	<i>xrx_name</i>	<i>afp_name</i>
:	:	:	:	:

text

Explanation: *copy_num* identifies the report copy. *line_num* identifies the line number of the report. *column_num* identifies the column number of the report. *xrx_name* identifies the name of the Xerox font. *afp_name* identifies either a coded font name or a code page and character set pair.

RTEXT - The report will not include routing text.

Explanation: The data stream converter found an RTEXT=NONE DJDE.

SAVE - The data stream converter does not support the SAVE DJDE.

Explanation: A SAVE DJDE, which InfoPrint XT does not support, is present.

SEFFNT - The data stream converter does not support the SEFFNT DJDE.

Explanation: A SEFFNT DJDE, which InfoPrint XT does not support, is present.

SEFMAP - The data stream converter does not support the SEFMAP DJDE.

Explanation: A SEFMAP DJDE, which InfoPrint XT does not support, is present.

SHIFT - The data stream converter will ignore SHIFT DJDEs.

Explanation: The data stream converter found a SHIFT DJDE, but the conversion parameters include **xhonorshift=no**. **xhonorshift=no** is the default. InfoPrint XT does not shift the output.

SHIFT - Printing on subsequent sheets will not shift up or down | to the left or right.

Explanation: The data stream converter found a SHIFT=NO DJDE, which prevents the output from shifting in the directions specified.

SHIFT - Printing on subsequent sheets will not shift on front sides, but will shift *bk_inches inches (bk_pels pels)* to the left | to the right | up | down on back sides.

Explanation: A SHIFT DJDE specified that front-side printing does not shift. Back-side printing does shift *bk_inches inches* in the direction specified.

SHIFT - Printing on subsequent sheets will shift *fr_inches inches (ft_pels pels)* to the left | to the right | up | down on front sides, but will not shift on back sides.

Explanation: A SHIFT DJDE specified that front-side printing shifts *fr_inches inches* in the direction specified. Back-side printing does not shift.

SHIFT - Printing on subsequent sheets will shift *fr_inches inches (ft_pels pels)* to the left | to the right | up | down on front sides, and *bk_inches inches (bk_pels pels)* to the left | to the right | up | down on back sides.

Explanation: A SHIFT DJDE specified that front-side printing shifts *fr_inches inches* and *bk_inches inches* on back sides, in the directions specified.

SIDE - The current logical page will begin on the *front | back* of a new sheet.

Explanation: This message occurs when the SIDE= specification forces the start of a new sheet. InfoPrint XT indicates whether the page begins on the *front* or *back* of a new sheet.

SIDE - The current logical page will begin on the back of the current sheet. The data stream converter *will | will not* offset the page.

Explanation: This message occurs when the SIDE= specification does not force a new sheet. InfoPrint XT indicates whether the page offsets.

STOCKS - A DJDE specified STOCKSET *stk_name*.

Command	Stock Reference	Cluster Name	Media Source
INIFEED	<i>stk_ref</i>	<i>cl_name</i>	<i>mmc_tray</i>
SYSPAGE	<i>stk_ref</i>	<i>cl_name</i>	<i>mmc_tray</i>
ASSIGN	<i>stk_ref</i>	<i>cl_name</i>	<i>mmc_tray</i>

Explanation: STOCKSET correlates each stock reference, *stk_name*, to a cluster name, *cl_name*. The reformatted cluster database in effect then correlates each cluster, *cl_name*, to an input media source tray, *mmc_tray*. INIFEED identifies the stock that InfoPrint XT uses if no OUTPUT FEED or OUTPUT DJDE commands are in effect. SYSPAGE identifies the stock that InfoPrint XT uses for Xerox system-generated pages, such as the accounting pages at the ends of reports. ASSIGN associates stock references with cluster names.

STOCKS - The data stream converter will ignore the STOCKS DJDE.

Explanation: A STOCKS DJDE is present. However, the value of the **xclb** conversion parameter is **none**. Or, **xclb** is not present and InfoPrint XT did not find the default **clustr.alb** in the reformatted Xerox resource directory. Verify that the **xclb** parameter has the correct value.

TOF - The new top of form (TOF) line number is *number*.

Explanation: Specifies the line number for the top of the form.

XMP - The data stream converter does not support the XMP DJDE.

Explanation: An XMP DJDE, which InfoPrint XT does not support, is present.

XSHIFT - The data stream converter will ignore XSHIFT DJDEs.

Explanation: The data stream converter found an XSHIFT DJDE, but the conversion parameters include **xhonorshift=no**. **xhonorshift=no** is the default. InfoPrint XT does not shift the output.

| **XSHIFT - Printing on subsequent sheets will not shift up or down | to the left or right.**

| **Explanation:** Specifies that the data stream converter found an XSHIFT=NO DJDE, which prevents the output from shifting in the directions specified.

| **XSHIFT - Printing on subsequent sheets will not shift on front sides, but will shift *bk_inches inches (bk_pels pels)* to the left | to the right | up | down on back sides.**

| **Explanation:** An XSHIFT DJDE specified that front-side printing does not shift. Back-side printing shifts *bk_inches inches* in the direction specified.

| **XSHIFT - Printing on subsequent sheets will shift *fr_inches inches (ft_pels pels)* to the left | to the right | up | down on front sides, but will not shift on back sides.**

| **Explanation:** An XSHIFT DJDE specified that front-side printing shifts *fr_inches inches* in the direction specified. Back-side printing does not shift.

| **XSHIFT - Printing on subsequent sheets will shift *fr_inches inches (ft_pels pels)* to the left | to the right | up | down on front sides, and *bk_inches inches (bk_pels pels)* to the left | to the right | up | down on back sides.**

| **Explanation:** An XSHIFT DJDE specified that front-side printing shifts *fr_inches inches* and *bk_inches inches* on back sides, in the directions specified.

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This publication primarily documents information that is NOT intended to be used as a Programming Interface of InfoPrint XT.

This publication also documents intended Programming Interfaces that allow the customer to write programs to obtain the services of InfoPrint XT. This information is identified where it occurs, either by an introductory statement to a chapter or section, or by this marking:

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Glossary of selected InfoPrint Solutions Company terms

This glossary provides definitions of specialized terms that are used with InfoPrint XT for Windows (InfoPrint XT) and InfoPrint XT for Windows (InfoPrint Manager). This glossary does not include terms that non-technical dictionaries define, or that have no special meaning in information processing and printing.

A

Access Control List (ACL). In computer security, a collection of all access rights for one object.

ACL. Access Control List.

actual destination. In InfoPrint Manager, an object that represents the output device that does the printing or transmission function. See also *physical printer*, *printer device*; contrast with *logical destination*.

addressable point. (1) In computer graphics, any point of a device that can be addressed. (2) Synonym for *pel*, or, in Xerox terminology, *dot*.

administrator. (1) A person responsible for administrative tasks, such as access authorization and content management. Administrators can also grant levels of authority to users. (2) In InfoPrint Manager, the person who creates and manages one or more components of a printing system, such as servers and actual destinations. (3) In InfoPrint XT, the person who creates the configurable transform object.

Advanced Function Presentation (AFP). The InfoPrint Solutions Company printing and presentation architecture.

Advanced Function Presentation (AFP) data stream. (1) A presentation data stream that is processed in AFP environments. MO:DCA-P is the AFP interchange data stream. IPDS is the AFP printer data stream. (2) A data stream that includes composed text, page segments, electronic overlays, form definitions, and fonts.

AFP. Advanced Function Presentation.

AFP resource directory. In InfoPrint XT, the directory in which it stores the AFP versions of Xerox printable resources. The AFP resource directory is one of these:

- %PDXTWORKDIR%\resources\common
- %PDXTWORKDIR%\resources\resgrp
- C:\OtherDirectory

AFP resource path. One or more *AFP resource directories*.

American National Standards Institute (ANSI). (1) A private, nonprofit organization whose membership includes private companies, U.S. government agencies, and professional, technical, trade, labor, and consumer organizations. ANSI coordinates the development of voluntary consensus standards in the U.S. (2) An organization consisting of producers, consumers, and general interest groups that establishes the procedures by which accredited organizations create and maintain voluntary industry standards in the United States.

ANSI. American National Standards Institute.

attribute. (1) A property, quality, or characteristic whose value contributes to the specification of an element or program function. (2) In InfoPrint Manager, 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.

C

CLI. Command line interface.

character set. (1) A defined set of characters with no coded representation assumed that can be recognized by a configured hardware or software system. A character set might be defined by alphabet, language, script, or any combination of these items. (2) An AFP font file that contains the raster patterns, identifiers, and descriptions of characters.

code page. (1) A unique bit pattern that represents a character in a code page. (2) An AFP font file that associates code points and graphic character identifiers.

coded font. An AFP font file that associates a code page and a font character set. For double-byte fonts, a coded font associates more than one pair of code pages and font character sets.

command line interface (CLI). (1) A type of computer interface in which the input command is a string of text characters. (2) An interface that lets users enter commands on a command line, such as the command line of a Windows Command Prompt window. Contrast with *Graphical User Interface*.

common resource. In InfoPrint XT, resource files that are in the %PDXTWORKDIR%\resources\common directory and the %PDXTWORKDIR%\resources\common\metrics directory. These resources are the AFP resource files and metrics files that correspond to Xerox resources that you have loaded on the system. Contrast with *resource group*.

D

data stream. (1) The commands, control codes, data, or structured fields that are transmitted between an application program and a device such as printer or nonprogrammable display station. (2) All data sent through a data channel in a single read or a single write operation. (3) A continuous stream of data elements in transmission, or intended for transmission, in character or binary-digit form that use a defined format. (4) Records sent to the InfoPrint Manager server from host systems that generate the print data sets.

default document. In InfoPrint Manager, an object that represents default attribute values for a document in a job. Synonymous with *initial value document*.

destination. (1) Any point or location, such as a program, node, station, printer, or a particular terminal, to which information is sent. (2) For InfoPrint Manager, see *actual destination*, *logical destination*.

document. (1) A machine-readable collection of one or more objects that represent a composition, a work, or a collection of data. (2) In InfoPrint Manager, 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.

document format. In InfoPrint Manager, a document format describes the type of data and control characters in the document, such as line data, metacode, or PostScript. The format of the data determines which printer devices are capable of printing the document, and whether InfoPrint Manager or InfoPrint XT must transform the data.

duplex printing. Printing on both sides of a sheet of paper, with the placement of the output images in a head-to-head format on the page. This places the top of one image at the same edge as the top of the next image. Synonymous with *normal duplex* printing. See also *tumble duplex* printing. Contrast with *simplex printing*.

E

electronic mail. Correspondence in the form of messages sent between workstations over a network. Synonymous with *e-mail*.

electronic overlay. An overlay that is in an AFP resource directory and that you or an application can request for printing in a job. See also *overlay*.

e-mail. Electronic mail.

enable. In InfoPrint Manager, the action that makes a destination, queue, or server able to accept jobs, or a log able to accept information.

environment variable. (1) Any one of the variables that describe the way that an operating system runs and the devices that it recognizes. The operating system can supply the variable, or applications can define the variables. (2) A variable that is included in the current software environment and is therefore available to any called program that requests it.

error log. A data set or file in a product or system, in which the product or system stores error information for later access.

F

FCB. Forms Control Buffer.

File Transfer Protocol (FTP). (1) In TCP/IP, the application protocol that makes it possible to transfer data to and from host computers, and to use foreign hosts indirectly. (2) In the Internet suite of protocols, an application layer protocol that uses TCP and Telnet services to transfer bulk-data files between machines or hosts.

font. (1) A collection of characters of a given typeface and size. (2) Used generically to mean the collection of coded fonts, character sets, and code pages.

form. In AFP, a physical sheet of paper on which data prints. Synonymous with *physical page* and *sheet*. See also *medium*.

form definition. An AFP resource that defines the characteristics of the form, which include:

- Overlays required, if any
- Paper source (for cut-sheet printers)
- Duplex printing
- Text suppression
- Position of composed-text data on the form

Forms Control Buffer. (1) An area of virtual storage in a printer control unit that contains the binary image of an IBM 3211 printer carriage control tape, the binary image itself, or a member of the z/OS system PDS SYS1.IMAGELIB, which contains such an image in the form of an assembled and linkedited CSECT. FCBs control vertical and horizontal placement of data on the page by assigning carriage control channels to line numbers, and designating a line number as the bottom of the form. (2) A buffer for controlling the vertical format of printed output. The FCB is a line-printer control that is similar to the punched-paper, carriage-control tape. For Advanced Function Presentation (AFP) printers, the forms control buffer is replaced by the page definition.

FTP. File Transfer Protocol.

G

| **graphics.** (1) Charts, pictures, illustrations, and tables
| created from fundamental drawing units such as lines,
| curves, and polygons. (2) Images, text, or a
| combination of both that you can put on an overlay by
| name.

| **graphical user interface (GUI).** A type of computer
| interface that presents a visual metaphor of a
| real-world scene, often of a desktop, by combining
| high-resolution graphics, pointing devices, menu bars
| and other menus, overlapping windows, icons and the
| object-action relationship. Contrast with *command line*
| *interface*.

I

| **icon.** (1) A graphical representation of a choice or
| object for the user to select. An icon can represent
| something a user wants to work with, such as a
| document, file, application, or user-created object or
| list. An icon can also represent an action a user wants
| to do. (2) A graphical symbol displayed on a screen
| that a user can select to call a function or software
| application.

| **image.** (1) An electronic representation of an original
| document or picture produced by a scanning device or
| created from software. (2) A pattern of toned and
| untoned pels that form a picture.

| **image cell.** A portion of an image that saves storage
| by defining only part of a raster pattern. Each image
| cell must also contain information that defines the
| placement of its raster pattern in the complete image.
| An image cell can repeat so that it fills a defined area.

| **InfoPrint Manager.** (1) A solution of software
| products and hardware products. The solution 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
| Manager takes documents from creation to the
| published and kitted product. (2) In InfoPrint Manager
| and InfoPrint XT software publications, InfoPrint
| Manager for Windows or any of its components.

| **InfoPrint Manager for Windows.** The software
| component of InfoPrint Manager. InfoPrint Manager for
| Windows handles the scheduling, archiving, retrieving,
| and assembly of a print job and its related resource
| files. It also tracks the finishing and packing of the
| printed product.

| **initial value document.** Synonym for *default document*.

| **Intelligent Printer Data Stream (IPDS).** (1) An
| all-points-addressable (APA) data stream that enables
| users to position text, images, and graphics at any
| defined point on the printed page. (2) 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. (3) An architected host-to-printer data stream
that contains both the data (text, image, graphics, and
bar codes) and controls the definition of how to present
the data. IPDS provides a device-independent interface
to control and manage APA printers.

| **International Organization for Standardization (ISO).**
| An organization of national standards bodies from
| various countries established to promote development
| of standards to facilitate international exchange and
| services, and develop cooperation in intellectual,
| scientific, technological, and economic activity.

| **IPDS.** Intelligent Printer Data Stream.

| **ISO.** International Organization for Standardization.

J

| **JCL.** Job control language.

| **JES.** Job Entry Subsystem.

| **job control language (JCL).** A language of control
| statements used to identify a computer job or describe
| its requirements to an operating system.

| **Job Entry Subsystem (JES).** (1) An IBM licensed
| program that receives jobs into the system and
| processes all output data that is produced by jobs. (2) A
| z/OS subsystem that receives jobs into the system,
| converts them to an internal format, selects them for
| execution, processes their output, and purges them
| from the system.

| **job ID.** A local or global identifier that identifies a job
| to a job submitter, administrator, operator, or to
| InfoPrint Manager or to z/OS. See *local job identifier*,
| *global job identifier*.

| **jogging.** A function that allows the printed output
| pages to be offset for easy separation of the print jobs.
| See also *offset stacking*.

L

| **landscape orientation.** The position of a printed page
| on a sheet of paper, so that the longer edges of the
| paper are the top and bottom of the page, and the
| shorter edges of the paper are the sides of the page.
| Contrast with *portrait orientation*.

| **line printer.** A device that prints individual characters
| in sequence from left to right, and top to bottom.
| Contrast with *page printer*.

| **local job identifier.** In InfoPrint Manager, a job
| identifier that the server automatically generates, which

maps the job to the user who submitted it. InfoPrint Manager maps a local job ID to a global job ID.

logical destination. In InfoPrint Manager, an object to which users or programs submit jobs. The destination routes the jobs to one or more actual destinations that represent output devices, such as printers, electronic mail systems, or fax machines.

logical page. Synonymous with *page*.

logical printer. In InfoPrint Manager, a type of logical destination. The logical printer routes jobs to one or more physical printers, which represent printer devices.

M

Management Console. In InfoPrint Manager, a graphical user interface for doing administrative tasks.

medium. In InfoPrint Manager, an object representing the physical material on which the job prints.

metrics directory. In InfoPrint XT, the directory in which it stores the metrics files for all the Xerox resources that you load. The metrics directory is one of these:

- %PDXTWORKDIR%\resources\common\metrics
- %PDXTWORKDIR%\resources\resgrp\metrics
- C:\OtherDirectory\metrics

message catalog. (1) A file that contains all the possible messages that can display during the processing done by an application. (2) An indexed table of messages. Two or more catalogs can contain the same index values. The index value in each table refers to a different language version of the same message.

Mixed Object Document Content Architecture (MO:DCA). An architected, device-independent data stream for interchanging documents.

Mixed Object Document Content Architecture-Presentation (MO:DCA-P). A subset of MO:DCA that defines presentation documents.

MO:DCA. Mixed Object Document Content Architecture.

MO:DCA-P. Mixed Object Document Content Architecture-Presentation.

monospaced font. (1) A font in which the spacing of the characters does not vary. (2) A font in which the graphic characters have uniform character increments. Contrast with *proportionally-spaced font*.

multiple-up printing. The arrangement of more than one page of data on a single sheet of paper. Synonymous with *N_UP*.

N

N_UP. (1) The partitioning of a side of a sheet into a fixed number of equal size partitions. For example, 4-up divides each side of a sheet into four equal partitions. (2) Pertaining to the number of forms that you put together in a layout. Typical layouts are 2_UP, 4_UP, 8_UP, 16_UP, and so on. You specify N_UP printing to use the maximum area of the print sheet. Synonymous with *multiple-up printing*.

non-process runoff (NPRO). (1) An operation that moves paper or forms through the paper path of a printer without printing. (2) The process of removing the last few sheets of a job that has finished printing on a continuous-forms printer. Typically, the last sheets of a job remain in the printer, and the next job forces the last sheets of the previous job out of the printer. This procedure saves time when printing is continuous, but when a delay exists between jobs, it is necessary to remove the end of the last job. After a period of time, as specified by an NPRO parameter, the printer clears out the last sheets of the job.

normal duplex printing. Duplex printing for sheets that are bound on the long edge of the paper, regardless of whether the printing is in portrait orientation or landscape orientation. Contrast with *tumble duplex printing*.

NPRO. Non-process runoff.

O

offset stacking. For certain printer devices, a function through which the printer can offset the printed output pages for easy job separation.

orientation. (1) In printing, the number of degrees an object is rotated relative to a reference; for example, the orientation of an overlay relative to the logical page origin, or the orientation of printing on a page relative to the page coordinates. Orientation usually applies to blocks of information. Character rotation applies to individual characters. (2) The angle between the top or bottom edge of the page and the baselines of text, as measured in a clockwise direction. (3) The rotation of an element relative to a fixed reference.

operator. In InfoPrint Manager and InfoPrint XT, the person responsible for printer devices. Also, this person does a subset of tasks for InfoPrint Manager queues and actual destinations, and does some job-related tasks.

output writer. On a z/OS system, the part of the job entry subsystem that receives job output from the system spool.

overlay. (1) A resource object that can contain text, image, graphics, and bar code data. Overlays define

their own environment and are often used as electronic forms. (2) A collection of predefined static data, such as lines, shading, text, boxes, or logos that can merge with variable data on a sheet while printing.

P

page. (1) In AFP, a data stream object delimited by a Begin Page structured field and an End Page structured field. A page can contain presentation data such as text, image, graphics, and bar code data. (2) A collection of data that can print on a physical sheet of paper. Synonymous with *logical page*.

page definition. (1) An AFP resource that defines the rules for transforming line data and XML data into MO:DCA-P data and text controls. (2) An AFP resource that contains a set of formatting controls for printing logical pages of data. It includes controls for the number of lines per sheet, font selection, print direction, and mappings for individual data fields to positions on the printed sheet.

page printer. Any of a class of printers that accepts composed pages, constructed of composed text and images, among other things, and that prints any sequence of pels in any order on the page. Contrast with *line printer*.

page segment. (1) An AFP resource object that contains text, image, graphics, or bar code data that can be positioned on any addressable point on a page or an electronic overlay. (2) An AFP resource prepared before formatting and included during printing. Synonymous with *segment*. Compare with *electronic overlay*.

path. The route used to locate files; the storage location of a file. A fully qualified path lists the drive identifier, if any, the directory name, the subdirectory name, if any, and the file name with its associated extension, if any.

pattern. Synonymous with *raster pattern*.

PDF. Portable Document Format.

pel. Short for *picture element*. The smallest area that the printer can tone individually. Synonymous with *addressable point* or *dot* in Xerox terminology.

physical page. Synonymous with *form*. Contrast with *logical page*.

physical printer. In InfoPrint Manager, a type of actual destination that represents a printer device. See also *printer device*.

picture element. See *pel*.

point. (1) A unit of measurement whose main purpose is to describe type sizes. Each pica contains 12 points, with approximately 72 points to an inch. (2) In the

Didot point system, a point is 0.0148 of an inch. Each cicero contains twelve Didot points.

Portable Document Format. A standard specified by Adobe Systems, Incorporated, for the electronic distribution of documents. PDF files are compact; can be distributed globally via e-mail, the Web, intranets, or CD-ROM; and can be viewed with the Acrobat Reader.

portrait orientation. (1) In printers, text and images that are printed parallel to the shorter side of the form. (2) The position of a printed page on a sheet of paper, so that the shorter edges of the paper are the top and bottom of the page, and the longer edges are the sides of the page. Contrast with *landscape*.

print fidelity. A function of InfoPrint XT that measures the length of a Xerox print line and makes sure that the corresponding AFP line it generates is the same length.

print job. The data to print, with specific conversion parameters and print options that you submit to InfoPrint Manager for processing. A print job is similar to a *report*, which is the Xerox term used for the job.

Print Services Facility (PSF). (1) An IBM licensed program that produces printer commands from the data sent to it. (2) A program that manages and controls the input data stream and output data stream required by supported printers.

printer device. The actual printer hardware, such as an InfoPrint 4100. See also *physical printer*.

proportionally-spaced font. A font in which the characters are contained in character cells that vary with the size of each character. Fonts of this type provide for even spacing between printed characters, and eliminate excess white space around narrow characters, such as the letter "i". Contrast with *monospaced font*.

PSF. Print Services Facility.

R

raster pattern. A series of pels arranged in scan lines to form an image. The toned or untoned status of each pel creates an image. A digitized raster pattern is an array of bits. The on or off status of each bit determines the toned or untoned status of each pel.

resource. In the AFP architecture, a collection of printing instructions and sometimes data that consists entirely of AFP structured fields. You store a resource as a member of a library, and InfoPrint Manager can call the resource when it needs it. Coded fonts, font character sets, code pages, page segments, overlays, form definitions, and page definitions are all AFP resources.

reformatted Xerox resource path. Synonymous with *metrics directory*.

resource group. In InfoPrint XT, resource files that are in the %PDXTWORKDIR%\resources\resgrp directory and the %PDXTWORKDIR%\resources\resgrp\metrics directory. These resources are the AFP resource files and the metrics files that correspond to Xerox resources that you have loaded on the system. Using resources groups, you can load several versions of Xerox resources that have the same names, but different internal characteristics. Contrast with *common resource*.

rotation. The number of degrees to rotate a character relative to the print direction. One of four directions that define the orientation of text relative to a sheet, page, overlay, text block, or page segment.

S

segment. Synonymous with *page segment*.

server. In InfoPrint Manager, the object that accepts configuration, management, and printing requests, does the requested operations, and sends responses back as a result of the operations.

| **ServerName_JobIdentifier.** An unambiguous job
| identifier. In InfoPrint Manager, it is the name of the
| server that manages the job, followed by an underscore,
| _, and a 10-digit, generated integer. This ID uniquely
| identifies the job in the InfoPrint Manager server.

sheet. Synonymous with *form*.

simplex printing. Pertaining to printing on only one side of the paper. Contrast with *duplex printing*.

SPOOL (Simultaneous Peripheral Operations On-line). Auxiliary storage used as a buffer storage to reduce processing delays when transferring data between peripheral equipment and the processors of a computer.

standard error (STDERR). The primary destination of the error messages that a command or a program generates. Standard error corresponds to file descriptor two; **fd2**.

standard input (STDIN). The primary source of data that enters into a command. Standard input comes from the keyboard unless you use redirection or piping, in which case the input can be from a file, or from the output of another command. Standard input corresponds to file descriptor zero; **fd0**.

standard output (STDOUT). The primary destination of data that comes from a command. Standard output goes to the display unless you use redirection or piping, in which case the output can go to a file, or to another command. Standard error corresponds to file descriptor one; **fd1**.

STDERR. Standard error.

STDIN. Standard input.

STDOUT. Standard output.

structured field. A self-identifying string of bytes and either its data or parameters; the basic building blocks of AFP resources and formatted AFP output.

superuser. Synonym for *root user*.

T

text orientation. A description of the appearance of text as a combination of inline directions, baseline directions, and character rotation.

tumble duplex printing. Duplex printing for sheets that are to be bound on the short edge of the paper, regardless of whether the printing is portrait or landscape. Contrast with *duplex printing*.

W

ward. A section of a double-byte character set (DBCS) font. The first byte of all code points in the character set have the same value. Converting a single Xerox DBCS font creates several character set files and code page files, with a pair for each ward in the font.

working directory. In InfoPrint XT, the main directory that InfoPrint XT uses when it creates subdirectories for a specific job, or subdirectories for resources. The default working directory is %PDXTWORKDIR%. You can change the default working directory with the PDXTWORKDIR environment variable.

X

Xerox resource directory. In InfoPrint XT, the directory in which it stores copies of all the Xerox resources that you load successfully. The Xerox resource directory is one of these:

- %PDXTWORKDIR%\resources\common\rxres
- %PDXTWORKDIR%\resources\resgrp\rxres
- C:\OtherDirectory\rxres

Z

z/OS. An IBM operating system for the IBM zSeries family of enterprise servers that includes and integrates functions previously provided by many IBM software products (including the MVS and OS/390 operating systems). z/OS is an open, secure operating system for the IBM zSeries family of enterprise servers, complies with industry standards, is enabled for network computing and e-business, and supports technology

advances in networking server capability, parallel processing, and object-oriented programming.

Glossary of selected Xerox terms

C

CMD. The file type, or extension, of a Xerox command file. These text files contain command-language statements for groups of related commands. The commands can do tasks, such as setting up a printing environment and running a specific job. Then, the operator can run all the commands in the CMD file by entering its name as a single command, rather than having to enter all the commands individually.

CME. Copy Modification Entry.

Copy Modification Entry (CME). A Xerox page description language (PDL) construct that is present on the hard disk of the Xerox LPS printer, such as an 8700, a 9790, or a 4050. A CME contains the text changes or font changes to make at a specific location on the page. The change can occur on all copies of a job, or only on specific copies. For example, you can use a CME to replace or highlight text on line eight of page three, on the second copy of that page.

copy-sensitive. A report that has multiple, collated copies, with CMEs, FORMS, or BFORMs that apply to specific copies. For example, you can request three copies of a particular report and specify that copy one of the report use CME1, and that copies two and three use CME2. Likewise, in a report with six copies, you can request that FORM1 be printed on copies one through four, and that BFORM2 be printed on the backs of copies three through six. The Xerox LPS processes copy-sensitive CMEs only in the offline environment. In online jobs, it ignores copy-sensitive specifications for CMEs, and it applies the CMEs to all the copies. You can specify copy-sensitive FORMS and BFORMs for both online and offline jobs.

D

DJDE. Dynamic Job Descriptor Entry.

Dynamic Job Descriptor Entry (DJDE). Commands in an input file for a Xerox LPS printer. The Xerox printer uses these commands to dynamically modify the printing environment; for example, DUPLEX, COPIES, COLLATE, FORMS, and SHIFT are representative of page-oriented commands. InfoPrint XT supports the majority of the common DJDE commands.

downloadable PDE. A DJDE that begins with 'FORMAT=*' and that contains a list of fonts in a binary format. Xerox developed the downloadable PDE for use with early versions of Xerox printer software. Although the FONTS DJDE currently replaces it, later

Xerox printer software versions still support the downloadable PDE. XICS and HFDL programs can optionally generate downloadable PDEs when producing metacode output. Metacode produced by customer-written programs might also contain the 'FORMAT=*' DJDE.

E

Electronic Printer Image Construction (EPIC). A Xerox host-resident software product (z/OS and /z/VM) that transforms graphics files to Xerox compressed raster image format for printing on an LPS printer equipped with the graphics handling option (GHO). Interfaces are provided to Dassault System of America's CADAM, ISSCO's DISSPLA/TELL-A-GRAF, SAS Institute's SAS/Graph, GDDM, and DCF.

EPIC. Electronic Printer Image Construction.

F

FDL. Forms Description Language.

FNT. The file type, or extension, of a Xerox font file. InfoPrint XT converts Xerox FNTs to AFP fonts.

form. A Xerox form is a collection of predefined data that is on the printer hard disk, such as lines, shading, graphics, and text, which can merge with variable data on a sheet while printing.

Forms Description Language (FDL). A command-oriented language that enables the user to create forms by specifying such things as page orientation, font selection, and rules. Customers use FDL commands by inputting them through the Xerox LPS printer console. FDL is also the Xerox LPS compiler task that creates FRMs from FSLs. InfoPrint XT does not use FSL commands in data stream conversion. Instead, it uses the actual form, as specified in an FRM file.

Forms Source Library (FSL). A file that contains FDL source statements, which define one or more electronic forms. InfoPrint XT does not use FSLs during data stream conversion.

FRM. The file type, or extension, of a Xerox forms file. InfoPrint XT converts Xerox FRMs to AFP overlays.

FSL. Forms Source Library.

G

GHO. Graphics Handling Option.

Graphics Handling Option (GHO). A collection of hardware and software that enables a Xerox LPS printer to print encoded, digitized graphic images.

H

HFDL. Host Forms Description Language.

Host Forms Description Language (HFDL). A Xerox host-resident software product (on z/OS and z/VM) that customers use to create electronic forms for Xerox LPS printers. The printer software (microcode) included with the Xerox LPS printer includes a printer-resident version of the software.

I

IMG. The file type, or extension, of a Xerox image file. InfoPrint XT converts Xerox IMGs to AFP page segments.

inline resources. In a Xerox printing environment, all resources, such as fonts and graphics, are on the Xerox printer. Xerox printers can accept jobs that specify FILE or GRAPHICS DJDEs, which cause new resources to load on the printer. In some cases, the incoming job contains no print data, but rather contains resources that load on the printer when the job runs.

inverse landscape orientation. The position of printed data on a sheet of paper, 180° from standard landscape orientation for a device.

inverse portrait orientation. The position of printed data on a sheet of paper, 180° from standard portrait orientation for a device.

J

JDE. Job Descriptor Entry.

JDL. Job Description Library.

Job Descriptor Entry (JDE). A set of print-job characteristics grouped together to represent the processing requirements for a specific print job. These are also known as job command sets. You can define one of the JDEs as the default job descriptor entry. You can then use this to establish a default print environment, which DJDE statements embedded in the actual print job can then dynamically alter.

Job Descriptor Library (JDL). The object file created by compiling the JSL, which contains one or more JDEs to use on a Xerox LPS printer.

JSL. Job Source Library.

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Job Source Library (JSL). A Xerox LPS printer source file that contains statements that define the characteristics of one or more print environments (JDEs), such as tape formats for tape to print, logical processing requirements, and output formats (COPIES, OFFSET, DUPLEX, SHIFT, FORMS, and so forth). To run Xerox print jobs, the JSL must first be translated to an object form (compiled) JDL by the printer control unit. InfoPrint XT does not use JSL commands in data stream conversion.

L

Laser Printing System (LPS). A class of Xerox cut-sheet production printers that accept LCDS and metacode jobs. Most of the LPS printers, such as the 4635, are in the DocuPrint series of printers.

LCDS. Line Conditioned Data Stream.

LGO. The file type, or extension, of a Xerox logo file. InfoPrint XT converts Xerox LGOs to AFP page segments.

LIB. The file type of a Xerox 80-byte text file, or a cluster library file (not in 80-byte text format). InfoPrint XT processes and uses information in the CLUSTR.LIB file. This file correlates clusters, which are individual paper drawers or groups of paper drawers, with names of paper drawers or paper drawer groups. STK files contain the name definitions.

Line Conditioned Data Stream. Line data with embedded DJDEs that specify formatting instructions for the data.

line data. A data stream format that contains standard text data and impact printer controls, such as channels and carriage controls. Line data contains no metacodes or DJDEs.

logical page. An imaginary rectangular section of a physical side of a sheet. Using the BEGIN command, Xerox print jobs can specify that several logical pages exist on each physical page. Xerox data streams typically use skip-to-channel-one carriage controls to jump from one logical page to the next. When data processing finishes for all the logical pages on one side, the next skip-to-channel-one carriage control causes the printer to jump to the first logical page on the next side.

logical processor commands. Special Xerox commands that look for predefined character strings or character-string changes in the input data, and take various kinds of action when one of the strings is found. The logical processor commands include:

BANNER

Detects banner pages. It might use some of the

information about the banner pages for accounting purposes, or it might delimit reports in a print job.

BDELETE

Deletes specified blocks from offline data to prevent them from printing.

BSELECT

Selects specified blocks from offline data to cause them to print.

RAUX Pulls a single sheet of paper from the auxiliary paper tray.

RDELETE

Deletes specified records from offline data to prevent them from printing.

RFEED Dynamically specifies a cluster of input paper drawers.

ROFFSET

Causes the paper in the output tray to jog.

RPAGE

Moves the next or current logical page to the back of the current sheet, or to the front or back of the next sheet.

RRESUME

Resumes printing after a group of records when the contents of the first and last records are known, but the contents of the records between them are not.

RSELECT

Selects specified records from offline data to cause them to print.

RSTACK

Delimits reports in a print job.

RSUSPEND

Prevents printing of a group of records when the contents of the first and last records are known, but the contents of the records between them are not.

LPS. Laser Printing System.

M

metacode data stream. A data stream that contains embedded metacodes. It might or might not include DJDEs. Some Xerox host system software products, such as XICS, produce output with embedded metacodes. Additionally, some Xerox customers have written applications that embed metacodes in the print file.

metacodes. Metacodes are a set of reserved character codes that convey formatting instructions to the printer. The metacode format is the native language of the Xerox LPS printer.

N

non-printable resource. In InfoPrint XT, a Xerox CMD, CME, JDL, LIB, PDE, STK, or TST file from which InfoPrint XT creates a metrics file when you load the resource.

O

offline environment. In an offline printing environment, the Xerox printer receives the incoming data from a tape drive directly attached to the printer, rather than from a channel-attached host. This environment requires operator intervention to send the data to the printer.

online environment. In an online environment, the printer receives the incoming data directly from a channel-attached host. This environment requires no operator intervention to send the data to the printer.

OTEXT. A type of job that contains messages for the operator that display on the console of the printer. For example, the message might specify the type of paper to load.

P

Page Description Entry (PDE). A set of statements that define formatting information for each page of a print job, including page orientation, starting print line, and fonts.

PDE. Page Description Entry.

PDL. Print Description Language.

PDL compiler. A printer, workstation, or host-based program that you use to translate PDL source commands to objects usable by the Xerox LPS.

Print Description Language (PDL). Statements that define the characteristics of print jobs, such as tape formats for tape to print, logical processing requirements, and output formats. You use these statements to create CMEs, PDEs, JDLs, and so on.

printable resource. In InfoPrint XT, a Xerox FNT, FRM, IMG, or LGO file from which InfoPrint XT creates both a metrics file, and one or more AFP resource files when you load the resource.

R

report. In Xerox terminology, a logical subset of the data in a Xerox print job. Each print job might consist of a single report, or might contain several reports. Delimiter pages might separate reports in the printed output. Each report might also end with an accounting information page. In the input data stream, character

strings defined by the RSTACK or BANNER command serve to separate the reports.

resource. See *non-printable resource* and *printable resource*.

S

signature font. A font that contains one or more images, logos, or signatures that are tiled into many characters. You can reproduce the image by printing the correct sequence of characters from the font.

START. The command that a Xerox printer operator enters to start a print job from the console of a Xerox LPS printer. The command has two arguments, separated by a comma. The first argument is the JDE for the job and the second argument is the JDL. Each job must specify the appropriate starting JDE and JDL, otherwise the job either does not print, or prints with errors.

STK. The file type, or extension, of a Xerox stockset file. A stockset file defines paper drawers, such as which are the main and auxiliary drawers, and which is the default drawer. You use STK files with the cluster database (CLUSTR.LIB), which contains cluster information in a binary format. The stockset and the CLUSTR.LIB represent a specific printing environment when the operator loads specific types of paper in the drawers of the printer. For example, when printing checks, the customer might have forms in one drawer on which a monthly statement prints, and the actual checks in another drawer.

T

TST. The file type, or extension, of a Xerox routing text file. These precompiled files contain text strings that print on separate pages, which precede the individual reports. These text strings are also called routing text and, as an option, you can print them with an overlay. You create TST files by compiling ROUTE commands in JSL files. The RTEXT JDL command or the RTEXT DJDE invokes them from the job data stream. The RFORM JDL command or RFORM DJDE specifies whether an overlay prints on the routing text page.

X

Xerox Integrated Composition System (XICS). A host-resident software product for composing text documents (z/OS, z/VSE, z/VM) that print on a Xerox centralized printer or photo-typesetter. XICS provides support for merging Xerox format graphic images inline or to reserve white space for merging at the printer. Commands are of the control word variety, rather than generalized markup.

Xerox Job Control Facility (XJCF). A host-resident software product developed by Xerox Computer Systems as an extension to z/OS JES2 for the Xerox LPS printers. It builds and inserts DJDE records in the output file based on user job control statements, Xerox-extended JES2 parameters, initialization parameters, and JES2 system defaults. In addition to 3800-1 compatibility support, it provides a mechanism for accessing other features of the Xerox centralized printers (such as duplex, two-up, and electronic forms merge) without user awareness of DJDEs.

Xerox Production Print Mode (XPPM). Pertaining to printing to Xerox LPS printers using LCDS or metacode data streams.

Bibliography

You can find additional information about products that you can use with InfoPrint XT for Windows (InfoPrint XT) in the publications listed in this bibliography.

The titles and order numbers may change from time to time. To verify a current order number or a current title, consult your marketing representative.

Note: You can access viewable copies of many publications through the InfoPrint Solutions Company Web site:

<http://www.infoprint.com>

For online access and ordering for IBM publications, go to:

<http://www.elink.ibm.link.ibm.com/public/applications/publications/cgi-bin/pbi.cgi>

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- *Advanced Function Presentation: Programming Guide and Line Data Reference*, S544-3884
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- *InfoPrint Manager for Windows: Introduction and Planning Guide*, G544-5716
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