RICOH

RICOH InfoPrint XT for Linux

Installing and Using

Version 3.5.0.0

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For information not in this manual, refer to the Help System in your product.



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Glossary of selected Xerox terms

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Preface

About this publication

This publication describes how to install, configure, and use InfoPrint XT for Linux. 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 Linux (5648-F40) 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.

You can also use InfoPrint XT as a RICOH ProcessDirector™ (5765-H30) external step.

Who should use this publication

This publication contains instructions and procedures for Linux 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.

Installed copy of this publication

InfoPrint XT installs a copy of this publication in **/opt/infoprint/pdxt/nls/doc/en_US/pdxtlnx.pdf.**.

Notation conventions

The following notation conventions are used throughout this publication:

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

The following types of highlighting are used:

Bold

Identifies commands, attributes, files, directories, and other items whose names the InfoPrint XT installation predefines. For example, the **pdxtx2afp** command or **/opt/infoprint/pdxt/bin** 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*. In this syntax *jdl_name* is a value that you choose.

The following syntax diagrams and examples are used:

- 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.

- A vertical bar or bars between two or more entries means that you can specify only one of the values. **[xspacing=none| word | trnw | char]** is an example of this notation. There are four possible values:
  - **xspacing=none**
  - **xspacing=word**
  - **xspacing=trnw**
  - **xspacing=char**
- An underscore identifies the default value for an option or parameter. The software 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 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 the command line, as InfoPrint XT does not provide a user interface.

Entering command parameters that this publication describes

When you enter parameters and their arguments for InfoPrint XT commands, always separate parameters and their arguments with a space. Here is an example:

```
-g pdxttest
-x 'xjdl=pdxton xjde=strton'
```

Abbreviations and terms

AFP

Advanced Function Presentation

FCB

Forms Control Buffer

IPDS

Intelligent Printer Data Stream

LCDS

Line Conditioned Data Stream

Linux system

This publication uses the term Linux system to refer to the system on which you install InfoPrint XT.

MO:DCA-P

Mixed Object Document Content Architecture-Presentation

NPRO

Non-process runout

PSF

Print Services Facility

SMIT

System Management Interface Tool

STDERR

Standard error

STDIN

Standard input

STDOUT

Standard output

Related Information

Other sources of information for use with the InfoPrint XT software are:

Web Sites

For additional information about Ricoh products, including printers and software:

- **http://rpp.ricoh-usa.com**

Information Centers

For online, task oriented information about Ricoh hardware and software products:

- **http://rpp.ricoh-usa.com/support**

Publications

Ricoh provides both hardcopy and viewable versions of publications. For a list of publications that might be useful with the InfoPrint XT software or installation:

http://info.rpp.ricoh-usa.com/help/index.jsp

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 **man** command, followed by the name of the man page. For example:

- **man pdxt**

For a complete list of all the man pages that InfoPrint XT supplies, access the **pdxt** man page.

1. Introducing InfoPrint XT

- **RICOH InfoPrint XT overview**
- **Xerox resources and the RICOH InfoPrint XT load process**

This chapter briefly describes the components of InfoPrint XT for Linux, 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.

RICOH InfoPrint XT overview

RICOH InfoPrint XT transforms Xerox Line Conditioned Data Stream jobs and metacode jobs to jobs that you can print on IPDS printers. RICOH 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 a presentation architecture for creating, storing, retrieving, viewing, and printing data. It was developed by IBM and is now maintained by the AFP Consortium.

Benefits of using AFP and RICOH InfoPrint XT

The AFP presentation architecture provides the ability to 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 RICOH InfoPrint XT without altering the applications that generate the jobs.

RICOH 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. Or, if your printing needs require support for Xerox highlight color, you can print your jobs on InfoPrint 5000 printers, which are full color production ink jet printers. These continuous forms printers are ideal for the high volume, production printing environment.

For in-depth information about the presentation architectures, see the publications listed for Advanced Function Presentation, p. 436. For detailed information about RICOH printers, visit this Web site:

```
http://www.ricoh.com
```

Xerox resources and the RICOH 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 RICOH InfoPrint XT *load* process. The RICOH InfoPrint XT **pdxtloadres** command does the actual conversion. You also convert the non-printable resources.

For more information about loading resources and the messages that RICOH InfoPrint XT can issue during the load process, see Resource utility messages: 5017-*nnn* X (*xxx*), p. 251, and Resource converter messages: 5018-*nnn*, p. 286.

Printable Xerox resources

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

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 RICOH InfoPrint XT uses

Xerox jobs use other types of resources, such as job descriptor libraries (JDLs) and page descriptor entries (PDEs). These resources control the data stream characteristics and the printing environment. When RICOH InfoPrint XT loads these Xerox resources, the load process does not produce any corresponding AFP resources. Instead, the RICOH InfoPrint XT resource utility stores output formatting information from the resources in metrics files. When you process a job that uses these resources, RICOH InfoPrint XT uses the formatting information to create a unique AFP form definition for the job. The form definition specifies information such as whether the job requires duplexed printing, and which printer bins to use.

This list describes the non-printable Xerox resources that RICOH 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.

Ink Descriptor Entry (IDR)

Specifies default ink catalogs, palettes and colors.

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**.

Non-printable Xerox resources that RICOH InfoPrint XT does not use

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

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

RICOH InfoPrint XT copies information for these non-printable resources when you load them. RICOH 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, p. 92.

Note

1. RICOH InfoPrint XT does not load **Ink Catalog (ICT)** resources, but stores related information in the ink correlation table.
2. The **pdxtpdl** command can compile Xerox JSL resources to store output formatting information in metrics files for use during job processing.

Xerox data stream conversion and Dynamic Job Descriptor Entries

Xerox jobs can contain Dynamic Job Descriptor Entries (DJDEs), which invoke printable and non-printable resources. DJDEs can appear in LCDS jobs or in metacode jobs. They can make modifications to the printing environment that the current JDL and JDE pair specifies. The RICOH InfoPrint XT data stream converter reads and interprets these internal Xerox entries and commands, as it converts the job into AFP. You can pass options to the data stream converter when you submit the job for conversion to control the types of processing that occur. The data stream convertor interprets a specific set of DJDE commands. For more information, see Supported and unsupported Xerox DJDE and PDL commands, p. 22.

Xerox START commands and RICOH 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 RICOH InfoPrint XT, you pass this same information to the data stream converter using RICOH InfoPrint XT conversion parameters. For more information, see these topics:

- Conversion parameters for converting Xerox jobs, p. 199, which describes the RICOH InfoPrint XT parameters that you pass to the data stream converter.
- Data stream converter messages: 5019-*nnn X* (*xxx*), p. 294, which describes the messages that the data stream converter issues.

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

You can use these methods to send Xerox LCDS and metacode jobs to the Linux system and to process them with RICOH 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 file system on the Linux system. You also need RICOH ProcessDirector for Linux and the **mvsprsd** daemon that they provide, to process jobs through Download for z/OS.

Note

Some Ricoh software publications and user interfaces refer to Download for z/OS by its previous name, MVS Download. When used in this publication, Download for z/OS refers to the same product as the MVS Download references in other publications and interfaces.

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 RICOH InfoPrint XT.

LPR

If you have InfoPrint Manager or RICOH ProcessDirector RICOH ProcessDirector 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, p. 436.

RPD Hot Folder

If you have RICOH ProcessDirector installed, you can configure a Hot Folder to process the Xerox jobs with RICOH InfoPrint XT. See *RICOH ProcessDirector: Integrating with Other Applications*, G550–1042.

pdxtx2afp command

You can use the RICOH InfoPrint XT **pdxtx2afp** command to process Xerox jobs and create the corresponding AFP versions of the jobs.

For more information about processing jobs, see Submitting Xerox jobs for data stream conversion, p. 151.

Highlight color processing

RICOH InfoPrint XT provides a rich set of features that support Xerox LPS highlight color. These features are designed to help you migrate your Xerox applications to full color AFP and precision marketing solutions.

RICOH InfoPrint XT uses an ink correlation table to convert Xerox highlight color ink specifications to device-independent CIELAB values in the AFP output and resources that it creates. All CIELAB values that RICOH InfoPrint XT uses assume the CIE Standard Illuminant D50 and the CIE 1931 2° Standard Observer.

RICOH InfoPrint XT converts color specifications in Xerox resources and data streams into one of the naming conventions in the ink correlation table in order to locate the correct CIELAB values for the AFP resources and data streams that it generates.

The **pdxtcolor** command helps you maintain and customize the ink correlation table. This command also creates AFP color sample jobs, allowing you to print or view the colors represented in the ink correlation table.

Ink correlation table organization

Xerox highlight color LPS printers are shipped with a variety of ink catalogs. These catalogs define color + black + white bit patterns called inks. The inks are organized into groups called palettes. RICOH InfoPrint XT consolidates the various Xerox ink catalogs, palettes and ink names into the shipped ink correlation table using these entry groups:

Ink correlation table organization

Catalog	Palette	Solid Color Ink Names	Alphanumeric Ink Names	Long Ink Names
SOLID	**SIMPLE**	**BLUE**	**B100**	**STRONG BLUE**
SOLID	**SIMPLE**	**GREEN**	**G100**	**VIVID GREEN**
SOLID	**SIMPLE**	**RED**	**R100**	**VIVID RED**
SOLID	**SIMPLE**	**BROWN** **CARDINAL** **CYAN** **GRAY*** **MAGENTA** **ROYAL** **RUBY** **VIOLET** **YELLOW****		
DFAULT	**BLUE**		**B***nn***K***nn*	**BLUISH GRAY**, etc.
DFAULT	**GREEN**		**G***nn***K***nn*	**GRAYISH GREEN**, etc.
DFAULT	**MONO**		**K***nn*	**LIGHT GRAY**, etc.
DFAULT	**RED**		**R***nn***K***nn*	**STRONG PINK**, etc.
XEROX1	**BLUE**		**H***nn***K***nn*	**BLUISH GRAY**, etc.
XEROX1	**BROWN**		**H***nn***K***nn*	
XEROX1	**CARDINAL**		**H***nn***K***nn*	
XEROX1	**CYAN**		**H***nn***K***nn*	
XEROX1	**GRAY***		**H***nn***K***nn*	
XEROX1	**GREEN**		**H***nn***K***nn*	**GRAYISH GREEN**, etc.
XEROX1	**MAGENTA**		**H***nn***K***nn*	
XEROX1	**MONO**		**K***nn*	**LIGHT GRAY**, etc.
XEROX1	**RED**		**H***nn***K***nn*	**STRONG PINK**, etc.
XEROX1	**ROYAL**		**H***nn***K***nn*	
XEROX1	**RUBY**		**H***nn***K***nn*	
XEROX1	**VIOLET**		**H***nn***K***nn*	
XEROX1	**YELLOW****		**H***nn***K***nn*	

Note

1. * In order to ensure a full palette of unique **H***nn***K***nn* shades, RICOH InfoPrint XT implements **GRAY** using CIELAB L* values in the ink correlation table.
2. ** Xerox offers **YELLOW** toner with the *DocuTech 128 / 155 / 180 HighLight Color* printer models. **YELLOW** was not offered with the earlier 4850 / 4890 or DocuPrint 92C printers.

Xerox job restrictions

These restrictions apply to Xerox jobs that you process with RICOH 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. RICOH InfoPrint XT also collects accounting information at the report level. However, RICOH 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 RICOH InfoPrint XT accounting information is specific to the pages that it converts.

C DJDE support

When you specify the **xcmt2nop=yes** parameter, RICOH InfoPrint XT copies the text of each C DJDE to an AFP NOP. Each C DJDE text string that is processed by **xcmt2nop=yes** must be all ASCII or all EBCDIC alphanumeric or blank characters, and must not contain any special characters.

FILE DJDE support

In the Xerox environment, Xerox printers can only process one job at a time. RICOH InfoPrint XT can process two or more jobs concurrently. Do not submit multiple FILE DJDE 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

RICOH 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 **pdxtloadres** 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 affect on shading that is produced by text fonts or custom graphics fonts.

- When converting data streams that use the FILE DJDE to specify one or more inline FRMs, this enhancement controls how RICOH 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 RICOH 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 image processing

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

- Interleaving by pixel for the color sample and the black sample that the Xerox image contains. RICOH 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 logo processing

RICOH InfoPrint XT can process Xerox highlight color logos and produce black-and-white AFP page segments that correspond to the logos.

Highlight color processing

The color output and resources that RICOH InfoPrint XT generates are designed to be device-independent. RICOH InfoPrint XT does not perform color management, generate CMOCA color management resources (CMRs), or use ICC profiles. To achieve the exact visual result that you require from particular printers and other output devices, it is your responsibility to select and use appropriate ICC profiles, rendering intents and CMRs outside of RICOH InfoPrint XT.

You must specify the **-H color** parameter of the **pdxtloadres** command for RICOH InfoPrint XT to process Xerox resources that contain color instructions. The default, **-H nocolor**, specifies that RICOH InfoPrint XT ignores color instructions in Xerox resources.

You must specify the **xhonorcolor=yes** parameter of the **pdxtx2afp** command for RICOH InfoPrint XT to process jobs and FILE DJDE resources that contain color instructions. The default, **xhonorcolor=no**, specifies that RICOH InfoPrint XT ignores color instructions in data streams and FILE DJDE resources.

You must specify the **-H color** parameter of the **pdxtpdl** command for RICOH InfoPrint XT to process Xerox JSL resources that contain color instructions. The default, **-H nocolor**, specifies that RICOH InfoPrint XT ignores color instructions in Xerox JSL resources.

The target output device for resources that you convert with the **pdxtloadres -H** color parameter, or data streams that you convert with the **pdxtx2afp xhonorcolor=yes** parameter, must support the PT3 PTOCA subset. For more information about the PT3 PTOCA subset, see the *Presentation Text Object Content Architecture Reference*.

OTEXT messages

RICOH InfoPrint XT for Linux can process jobs that contain OTEXT messages, but it does not display OTEXT messages or suspend printing. RICOH InfoPrint XT for AIX can display OTEXT messages and provides a method of suspending printing.

Overlay invocation

If you specify any of these data stream conversion parameters:

xcsmmname=yes

xhonorshift=yes

xhonorinvert=yes

xalign

RICOH InfoPrint XT generates Page Position (PGP) Format 2 structured fields in the AFP output, and invokes overlays from Include Page Overlay (IPO) structured fields in affected pages, rather than invoking overlays from medium maps in the inline FORMDEF.

Reformatted resources

Reformatted resources (metrics files) that you create using the RICOH InfoPrint XT 3.4 **pdxtloadres** or **pdxtpdl** commands might not be backward compatible with RICOH InfoPrint XT 2.1 for data stream conversion purposes.

SHIFT and XSHIFT JDL and DJDE commands

RICOH 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 RICOH InfoPrint XT to process jobs that contain SHIFT and XSHIFT commands. The default is that RICOH 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.

   RICOH 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 RICOH 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.

   RICOH InfoPrint XT correctly shifts all page segments as specified by the SHIFT command when you set up RICOH InfoPrint XT to honor SHIFT commands. RICOH 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, RICOH InfoPrint XT converts spacing characters in Xerox fonts to Presentation Text Object Content Architecture text characters in the AFP that it generates. It does the same for overlays that it generates from Xerox FRMs. You can instruct RICOH 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 **pdxtloadres** command or the **xspcrmi** conversion parameter to generate RMI structured fields.

Controlling how RICOH 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 RICOH InfoPrint XT processing:

- You must specify the **xhonorstaple=yes** conversion parameter for RICOH InfoPrint XT to process jobs that contain stapling instructions. The default is that RICOH InfoPrint XT ignores stapling commands.
- Differences exist in the stitching hardware of RICOH cut-sheet printers and Xerox LPS cut-sheet printers. Because of this, RICOH InfoPrint XT does not support the Xerox stapling commands FACEUP and NTO1, either when used independently or when used only with each other. RICOH 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, RICOH InfoPrint XT detects 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.
- RICOH 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, RICOH 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. RICOH 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.
- RICOH 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, RICOH 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 RICOH 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. RICOH 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 Conversion parameters for converting Xerox jobs, p. 199.

Other restrictions

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

240-pel resolution support

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

Receipt of jobs over a channel connection

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

Processing jobs on tape

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

Processing resources on tape

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

Security control that is based on Linux user names

To limit the functions that a given user name can do in RICOH ProcessDirector, you use access control lists and file permissions. RICOH InfoPrint XT does not use access control lists for its commands.

Compilers for FSLs

RICOH InfoPrint XT does not provide compilers for Forms Source Libraries (FSLs).

Double-byte character set (DBCS) support

RICOH 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 at data-stream conversion time. However, RICOH 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 RICOH 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 the *Data Stream and Object Architectures: Font Object Content Architecture (FOCA) Reference*, S544-3285.

Supported and unsupported Xerox DJDE and PDL commands

RICOH InfoPrint XT does not support a subset of less-commonly used Xerox DJDE and PDL commands. The table below lists both the supported and unsupported commands.

Supported and unsupported PDL and DJDE commands

Supported	Unsupported (See Note 1.)
ALTER	ABNORMAL
ASSIGN	BARCODE, BSEQ, BSIDE, BSKIP, RBAR
BATCH (See Note 2.)	BDELETE, BSELECT, RSELECT
BEGIN	BTEXT
BFORM	DESTINATION
BLANKTYPE	EXPAGE
BOF	EXPORT
C	IMISMATCH
CANCEL	IRESULT
COLLATE	ISUBSTITUTE
COPIES	ITEXT
DATA	LOGO (See Note 3.)
DEPT	MAP
DUPLEX	SAVE
END	SEFFNT, SEFMAP
FACEUP (See Note 5.)	SF1FUNCTION
FCB	SF2FUNCTION
FEED	SNUMBER
FILE	SPLIT
FONTINDEX	SRECOVER
FONTS	STIMING
FORMAT	TMODE

Supported	Unsupported (See Note 1.)
FORMS	TRANS
GRAPHIC	XMP
ICATALOG	
IDFAULT	
IDR	
ILIST	
IMAGE	
INK (See Note 6.)	
INKINDEX	
INVERT	
JDE	
JDL	
LPI	
MARGIN	
MODIFY	
NTO1 (See Note 5.)	
NUMBER	
OTEXT (See Note 7.)	
OVERPRINT	
PALETTE	
PMODE	
RFEED	
RFORM	
RTEXT	
SHIFT (See Note 4.)	
SIDE	
STAPLE	
STOCKS	
TOF	
XSHIFT	

Note

1. InfoPrint XT ignores these commands when it finds them in a job. InfoPrint XT processes the job and issues informational messages stating that it ignored the commands. Ricoh can negotiate support for unsupported DJDEs according to the customer's needs.
2. RICOH InfoPrint XT supports one BATCH mode image between each BATCH START / BATCH END pair.
3. If you compile an FSL to an FRM that contains LOGO references in its internal font list or logo list, RICOH InfoPrint XT supports those references. However, RICOH InfoPrint XT does not support a LOGO DJDE in the data stream.
4. Restrictions apply to this command. See SHIFT and XSHIFT JDL and DJDE commands, p 20.
5. RICOH InfoPrint XT only supports this command when you use it with the STAPLE command.
6. This is a CME parameter.
7. RICOH InfoPrint XT for Linux can process jobs that contain OTEXT messages, but does not display these messages or suspend printing. InfoPrint XT for AIX provides methods of displaying OTEXT messages and suspending printing.

2. Installing and configuring RICOH InfoPrint XT

- **Software requirements**
- **Installing InfoPrint XT**
- **Adding the printq group to existing user names**
- **Testing the RICOH InfoPrint XT installation**
- **Uninstalling RICOH InfoPrint XT**
- **Adding a new administrative user name**

This chapter describes how to install software, configure an RICOH InfoPrint XT for Linux system, and test the installation.

Software requirements

Before you install RICOH InfoPrint XT, you must first install one of these software products and its prerequisite software:

- For RICOH InfoPrint XT with InfoPrint Manager:
  - Red Hat Enterprise Linux 8.1 through latest 8.x
  - Red Hat Enterprise Linux 9.0
  - Red Hat Enterprise Linux 10
  - SUSE Linux Enterprise Server (SLES) 15
  - SUSE Linux Enterprise Server (SLES) 16
- For RICOH InfoPrint XT with RICOH ProcessDirector:
  - Red Hat Enterprise Linux 9
  - Red Hat Enterprise Linux 10
  - SUSE Linux Enterprise Server (SLES) 15
  - SUSE Linux Enterprise Server (SLES) 16
- For RICOH InfoPrint XT as a stand-alone product:
  - Red Hat Enterprise Linux 8.1 through latest 8.x
  - Red Hat Enterprise Linux 9
  - Red Hat Enterprise Linux 10
  - SUSE Linux Enterprise Server (SLES) 15
  - SUSE Linux Enterprise Server (SLES) 16

RICOH InfoPrint XT also requires these prerequisites installed on your system:

- glibc:
  - ld-linux-x86-64.so.2 (dynamic linker/loader)
  - libc.so.6 (GNU C Library)
  - libdl.so.2 (dynamic loading library)
  - libm.so.6 (math library)
  - libpthread.so.0 (POSIX threads library)
  - librt.so.1 (POSIX realtime extensions library)

- libgcc/libgcc_s1:
  - libgcc_s.so.1 (GCC runtime support library)
- libnsl/libnsl1:
  - libnsl.so.1 (network services library)
- libstdc++/libstdc++6:
  - libstdc++.so.6 (GNU C++ Standard Library)

Hardware requirements

The **pdxtdownload** for Linux server requirements are:

- One or more 2.9 GHz or faster standard Intel® processor-compatible hardware
- 4 GB or more RAM; for any document processing features, 12 GB RAM is the minimum requirement
- 200 GB or more disk storage
- Connectivity to the LAN.

Optional printer driver software

InfoPrint Manager

RICOH recommends InfoPrint Manager for Linux for printer management and for Advanced Function Presentation 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 RICOH InfoPrint XT when you process Xerox jobs.

Note

1. *InfoPrint Manager for Linux: Getting Started* describes all the InfoPrint Manager and Linux 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 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 RICOH 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 RICOH InfoPrint XT installations. See InfoPrint Manager configuration tasks, p. 45.

RICOH ProcessDirector

RICOH ProcessDirector is a print manufacturing system that lets you manage all aspects of your printing processes. Whether your printing environment is small, with a single printer, or large, with many printers, RICOH ProcessDirector can grow as your business needs grow. RICOH ProcessDirector provides several Download input devices, LPD input devices, and hot folder input devices. You can make minor modifications to the properties of any of these input devices and use them in the installation. You can also copy them to create new input devices.

Install the latest RICOH ProcessDirector as it is described in *RICOH ProcessDirector for Linux: Planning and Installing*.

To process Xerox jobs with RICOH ProcessDirector, you must complete other configuration tasks for combined RICOH ProcessDirector and InfoPrint XT installations. See RICOH ProcessDirector configuration tasks, p. 49.

Optional compiler software

You can install this software, based on functional need. For example, install a GNU C compiler, version 4.3.6 or later if you intend to customize RICOH InfoPrint XT application exit programs.

For GNU compilers, see the GNU Compiler Collection Web site:

```
http://gcc.gnu.org
```

Installing RICOH InfoPrint XT

Important

1. You can install RICOH InfoPrint XT on a single machine.
2. RICOH InfoPrint XT initially installs with a trial license that expires in 60 days. During this period, all RICOH InfoPrint XT capabilities are functional.
3. When you install a new version of RICOH InfoPrint XT, the previous license file **license.key** is saved in the backup license keys directory: **/opt/infoprint/pdxt/license/backups** and renamed **license.key.*n*.bak**, where *n* can be 1, 2, 3, ... etc.
4. When you install a license key file generated by EMS (Electronic Management System), the contents of new license key file are prepended to **license.key**. The new file is also saved in the license keys directory: **/opt/infoprint/pdxt/license/** as **license.key.ems**. The previous license file **license.key** is renamed **license.key.*n*.bak**, and the previous **license.key.ems** is renamed **license.key.ems.*m*.bak**. Both **license.key.*n*.bak** and **license.key.ems.*m*.bak** are moved to **/opt/infoprint/pdxt/license/backups**.

All the license related messages are saved in:

```
/var/pdxt/license/pdxtkeys.log
```

When the **pdxtkeys.log** file reaches the size of 300 KB, RICOH InfoPrint XT renames it to **pdxtkeys.log.bak** and creates a new **pdxtkeys.log**.

When you purchase a full license, the full license file replaces the demo license file. The full license file contains a perpetual key that will never expire and a maintenance key that is valid for 1, 2, 3, 4, or 5 years. This allows you to use the product for an unlimited period of time. However, you can only download product updates that were released during your maintenance period from the Ricoh web page.

Installing InfoPrint XT in demo mode

The procedures in this section install InfoPrint XT in demo mode.

Make sure all required hardware and software is available (see Software requirements, p. 25 for information). If you are installing InfoPrint XT on a server that has RICOH ProcessDirector already installed on it, the job submission from RICOH ProcessDirector must be stopped before installing InfoPrint XT.

For information about registering InfoPrint XT, see Applying license files to an InfoPrint XT installation, p. 32.

Preparing for the InfoPrint XT for Linux installation

Use this procedure to prepare for the InfoPrint XT for Linux installation.

1. If you do not have an InfoPrint XT for Linux CD
    1. Download the InfoPrint XT for Linux ISO file from the Ricoh web site.
    2. Burn the ISO file to a CD.

2. Enter this command to check for available space in the **/tmp** directory:

```
df -m
```

The installer program on the CD, `Setup.bin`, might require at least 3x its size in the **/tmp** directory. Inspect `Setup.bin` on the CD to estimate the required amount of temporary space. If there is not enough space in the **/tmp** directory, contact your system administrator to have the available space increased. Otherwise, the installer will prompt you to export the environment variable `IATEMPDIR`, in order to specify another directory that has enough temporary space.

Installing InfoPrint XT on a Linux server in graphical mode

Use this procedure to install InfoPrint XT on a Linux server with the installer.

1. Log in to the Linux system as the root user.
2. Insert the InfoPrint XT for Linux CD in the CD-ROM drive.
3. Read the installation readme file on the CD for any last-minute updates that are not available in this publication.
4. Run the `Setup.bin` file from the CD.
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.

Installing InfoPrint XT on an AIX server in graphical mode

Use this procedure to install InfoPrint XT on an AIX server with the installer.

1. Log in to the AIX system as the root user.
2. Insert the InfoPrint XT for AIX CD in the CD-ROM drive.
3. Read the installation readme file on the CD for any last-minute updates that are not available in this publication.
4. Run the `Setup.bin` file from the CD.
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.

Installing InfoPrint XT on a Linux server from the command line

Use this procedure to install InfoPrint XT on a Linux server from the command line.

1. Log in to the Linux system as the root user.
2. Insert the InfoPrint XT for Linux Base CD in the CD-ROM drive.
3. Read the installation readme file on the CD for any last-minute updates that are not available in this publication.
4. Enter this command from the CD directory: `./Setup.bin -i console`.

Note

If the installer starts in graphical mode, instead of the console mode, follow these steps:

1. Enter `unset DISPLAY`.
2. Enter `./Setup.bin -i console` again to start the installer in the console mode.

5. You see an introduction page with information about the console mode installation. You can type **quit** at any time to exit the installer, or you can type **back** to go to the previous screen. Press **Enter**.
6. The license agreement displays. Press **Enter** to scroll and type **Y** to accept it.
7. If an older version of InfoPrint XT is detected, you must first uninstall the previous version. If you uninstall a previous version in order to upgrade to Infoprint XT 3.4, do not remove **/var/pdxt**, **/opt/infoprint/pdxt/local**, or **/opt/infoprint/pdxt/localsrc**.
8. In the pre-installation summary information window, press **Enter** to install.
9. Press **Enter** to exit the installer.

Installing InfoPrint XT on an Linux server from the command line

Use this procedure to install InfoPrint XT on an AIX server from the command line.

1. Log in to the AIX system as the root user.
2. Insert the InfoPrint XT for AIX Base CD in the CD-ROM drive.
3. Read the installation readme file on the CD for any last-minute updates that are not available in this publication.
4. Enter this command from the CD directory: `./Setup.bin -i console`.

Note

If the installer starts in graphical mode, instead of the console mode, follow these steps:

1. Enter `unset DISPLAY`.
2. Enter `./Setup.bin -i console` again to start the installer in the console mode.

5. You see an introduction page with information about the console mode installation. You can type **quit** at any time to exit the installer, or you can type **back** to go to the previous screen. Press **Enter**.
6. The license agreement displays. Press **Enter** to scroll and type **Y** to accept it.
7. If an older version of InfoPrint XT is detected, you must first uninstall the previous version. If you uninstall a previous version in order to upgrade to Infoprint XT 3.4, do not remove **/var/pdxt**, **/usr/opt/pdxt/local**, or **/usr/opt/pdxt/localsrc**.
8. In the pre-installation summary information window, press **Enter** to install.
9. Press **Enter** to exit the installer.

Finishing the InfoPrint XT for Linux installation

Use this procedure to finish the InfoPrint XT for Linux installation.

1. Enter one of these commands to make the directory that you used for temporary storage the current directory:

```
cd /tmp
```

or

```
cd /IATEMPDIR_directory
```

2. Enter this command to verify that the temporary space was deleted:

```
ls -l install.dir.*
```

3. If any `install.dir.*` directories exist, enter this command to remove them and reclaim temporary space:

```
rm -R install.dir.*
```

4. After installing InfoPrint XT, restart your Linux system in order to propagate the environment variable changes to all users and applications.
5. If there are exits (`aiox1*`) in **/opt/infoprint/pdxt/local** and **/opt/infoprint/localsrc** that you will continue to use after installation, verify whether new versions of these exits were installed in **/opt/infoprint/samples**, and determine whether the new exit versions are applicable to your installation.

Applying license keys and files to an InfoPrint XT installation

The procedures in this section describe how to generate license keys and apply license files to an InfoPrint XT installation.

Generating License Keys

This procedure provides the steps used to generate license keys for InfoPrint XT.

1. To obtain a full key for use with the purchased license, you must supply the system fingerprint information for the system where you installed InfoPrint XT. You can display system fingerprint information using any of these methods:
    1. Run the **pdxtlicense -f keysysinfo** command. See Verifying the status of license files in an InfoPrint XT installation, p. 33.
    2. Run the **collectKeyInfo.ksh** script.
    3. Run the **echoid** command from the **/opt/infoprint/pdxt/license_installer** directory. You must run this command from the **/opt/infoprint/pdxt/license_installer** directory in order to make sure that **echoid** uses the information for RICOH InfoPrint XT. Otherwise, incorrect **echoid** output might result in a license key that RICOH InfoPrint XT cannot recognize as valid.
    4. Mount the RICOH InfoPrint XT installation CD . Open the **license_installer** directory on the CD and run **echoid**. You must run this command from the **license_installer** directory on the CD in order to make sure that **echoid** uses the information for RICOH InfoPrint XT.
2. Open a web browser. In the address bar enter:

    `https://dl.ricohsoftware.com/?activation`

3. On the Software Activation page, enter your EID and system fingerprint. Find the EID in the Ricoh-Entitlements email and type or paste it into the EID field.
4. Copy the system fingerprint from the **Install Licenses** dialog. When you enter the system fingerprint in EMS, do not enter the three-character prefix (if the fingerprint was generated with the echoid tool).
5. Remove the inner spacing characters from the system fingerprint before dropping it in the EID field from the Software Activation page. For example, if the generated system fingerprint you obtained from one of the three methods above is `18-*1X8 NE4W TJUN C7E8` or `*1X8 NE4W TJUN C7E8`, enter `*1X8NE4WTJUNC7E8`.
6. Click **Confirm Content**.
7. Select the license you want to activate and click **Activate**. After the license is activated, click **Download License Key**. The license key file is downloaded to your computer.
8. Transfer the downloaded license file on the machine where RICOH InfoPrint XT is installed, if you did not download the license file directly there. When you receive the license key file from Ricoh, use binary transmission methods to save it to a directory. Non-binary transmission can corrupt the file, causing errors during RICOH InfoPrint XT command execution. Do not open the license key file with an editor or any other tool that can change the file in any way.

Applying license files to an InfoPrint XT installation

Use this procedure to install license files on an RICOH InfoPrint XT installation.

1. Log in to the Linux system as the root user.
2. Run the `XT_license_installer.bin` command from the **/opt/infoprint/pdxt/license_installer** directory.
3. Or, insert the appropriate RICOH InfoPrint XT CD in the CD-ROM drive. Select `XT_license_installer.bin` command in the **/media/cdrom/license_installer** directory.
4. The Introduction page displays. Click **Next**.
   The licence keys installer analyzes the RICOH InfoPrint XT installation.
5. Accept the **License Agreement** and click Next.
6. If an error is reported, follow the instructions on the screen.
7. Specify the path to the license keys file that you created, received and saved with Generating License Keys, p. 31 and click **Next**.
8. The Pre-installation Summary displays. Click **Install**.
9. When the Install Complete screen displays, click **Done** to complete the installation.

Note

1. Successful completion of the license installer only means that a license key file was installed in the correct location and renamed **license.key**. It does not indicate that the license key is valid.
2. Since the license_keys_installer.bin utility does not update the Linux Software Vital Product Data database, the Linux **lppchk** command will not return meaningful information about the license key file. You can use the RICOH InfoPrint XT **pdxtlicense** command to display the status of license key files in **/opt/infoprint/pdxt/license**.

Verifying the status of license files in an InfoPrint XT installation

You use the **pdxtlicense** command to display information about the status of license key files and to display current system fingerprint information.

```
+ – – – – – – – –Programming Interface information – – – – – – – – +
```

pdxtlicense [**-f keystatus**] [**-f keysysinfo**] [*file*]

[-f keystatus]

InfoPrint XT displays the status of the license key files found in **/opt/infoprint/pdxt/license**. This is the default.

The installed license key file is named **license.key**.

The previously installed license keys files are stored in the **/opt/infoprint/pdxt/licensebackups** directory, and renamed as **license.key.***n*.**bak**, where *n* is 1,2,3 ... etc.

[-f keysysinfo]

InfoPrint XT displays system fingerprint information generated by the **echoid** command.

Note

1. If you specify this function with **-f keystatus** or with *file*, InfoPrint XT displays both license key status information and system fingerprint information.
2. **-f keysysinfo** must precede *file*, if you specify both.

[*file***]**

InfoPrint XT displays the status of the license key file that you specify

Note

1. If you specify a path and license key file, InfoPrint XT displays the status of the file in the specified directory.
2. If you specify a license key file without a path, InfoPrint XT looks for the specified file in the current directory and displays its status.
3. If you specify *file*, InfoPrint XT ignores **–f keystatus**.

These are examples of messages that the **pdxtlicense** command might generate:

```
pdxtlicense

5016-810 The license checking process started.
5016-812 Processing the license key files in directory
 /opt/infoprint/pdxt/license:
5016-813 The license key file license.key is valid.
5016-811 The license checking process is complete.

pdxtlicense -f keystatus

5016-810 The license checking process started.
5016-812 Processing the license key files in directory
 /opt/infoprint/pdxt/license:
5016-813 The license key file license.key is valid.
5016-811 The license checking process is complete.
```

```
pdxtlicense -f keysysinfo

5016-820 The current system fingerprint is *17G Y74X 6M65 2U5O.

pdxtlicense -f keystatus -f keysysinfo

5016-810 The license checking process started.
5016-812 Processing the license key files in directory
 /opt/infoprint/pdxt/license:
5016-814 The 3-year maintenance registration license key in
                           file license.key will expire in 4 day(s).
5016-811 The license checking process is complete.
5016-820 The current system fingerprint is *17G Y74X 6M65 2U5O.

pdxtlicense -f keystatus -f keysysinfo /tmp/test/license.key.demo

5016-810 The license checking process started.
5016-816 The trial license key in file
 /tmp/test/license.key.demo expired.
5016-811 The license checking process is complete.
5016-820 The current system fingerprint is *17G Y74X 6M65 2U5O.
```

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

Return codes from the pdxtlicense command

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

0

The command was successful.

EINVAL (22)

An error exists with one of the command options.

E2BIG (7)

The command contains too many command options.

ENOATTR (61)

You specified a command option without a value, or you did not specify a required command option.

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

Adding the printq group to existing user names

All existing user names that you want to authorize to load Xerox resources through RICOH InfoPrint XT must be members of the **printq** group.

To verify group membership or to add the **printq** group to a user name:

1. Log in to the Linux system as the root user.
2. Access the *User Management* panel from *YaST Control Center* to add the desired user name as a member of the **printq** group.

Important

If you use RICOH ProcessDirector or InfoPrint Manager, make sure you have the RICOH ProcessDirector or InfoPrint Manager user added in the **printq** group. The default user names are *aiw1* and *ipm1*.

After you add the RICOH ProcessDirector or InfoPrint Manager user to the **printq** group, restart your Linux system.

Testing the RICOH InfoPrint XT installation

Test the RICOH InfoPrint XT installation before you begin processing Xerox jobs through RICOH InfoPrint XT. There are two different methods of processing an RICOH InfoPrint XT-supplied test job. The method depends on whether InfoPrint Manager or RICOH ProcessDirector is also installed. If you have a combined RICOH InfoPrint XT and InfoPrint Manager or RICOH ProcessDirector installation, see To test the InfoPrint Manager and RICOH InfoPrint XT installation, p. 36, and To test the RICOH ProcessDirector and RICOH InfoPrint XT installation, p. 36.

Testing with the pdxtloadres and pdxtx2afp commands

RICOH InfoPrint XT provides a small Xerox test job and the Xerox resources that it requires in the **/opt/infoprint/pdxt/testjob** directory. You use the RICOH InfoPrint XT **pdxtloadres** command to load the resources and the **pdxtx2afp** command to process the test job.

To test the RICOH InfoPrint XT installation:

1. Log in to the Linux system with any user name that is a member of the **printq** group.
2. Make the directory that contains the test job the current directory. From the command line, enter:

```
cd /opt/infoprint/pdxt/testjob
```

3. Load the resources for the test job:

```
pdxtloadres -n '*' -g pdxttest
```

4. Copy the parameter mapping file for the test job to the **/var/pdxt** directory:

```
cp pdxtx2afp.map /var/pdxt
```

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

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

   RICOH InfoPrint XT writes information from the conversion process to standard error (STDERR).

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.
```

To test the InfoPrint Manager and RICOH InfoPrint XT installation

In addition to a Xerox test job and its resources, RICOH InfoPrint XT provides an InfoPrint Manager attributes file for the test job. The installation process writes this file to the **/opt/infoprint/pdxt/testjob** directory. Use the attributes file to test the initial RICOH InfoPrint XT installation in a combined InfoPrint Manager and RICOH InfoPrint XT environment.

To test the InfoPrint Manager with RICOH InfoPrint XT, do the following tasks:

1. Log in to the Linux system with any user name that is a member of the **printq** group.
2. Make the directory that contains the test job the current directory. From the command line, enter:

```
cd /opt/infoprint/pdxt/testjob
```

3. Load the resources for the test job:

```
pdxtloadres -n '*' -g pdxttest
```

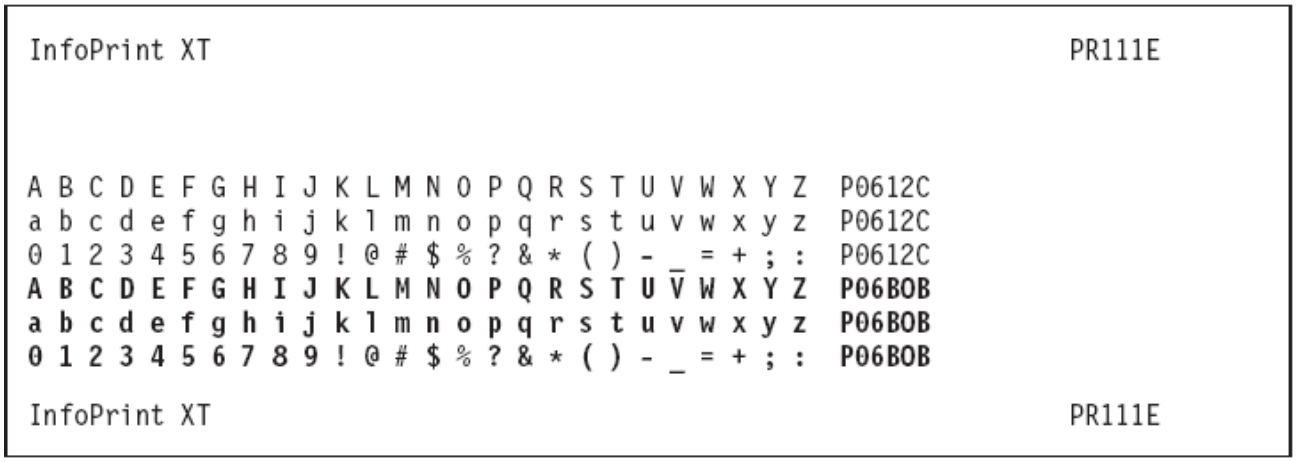
4. Submit the test job:

```
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. The next figure shows an example of the first test page.

RICOH InfoPrint XT test page for an InfoPrint Manager and InfoPrint XT installation



To test the RICOH ProcessDirector and RICOH InfoPrint XT installation

To test RICOH ProcessDirector with RICOH InfoPrint XT do the following tasks.

These tasks apply to RICOH ProcessDirector Version 3.4.1 or later.

The RICOH InfoPrint XT data stream converter runs with RICOH ProcessDirector as an external step. When the RICOH InfoPrint XT Xerox test job is submitted to RICOH ProcessDirector, it calls RICOH InfoPrint XT to convert the Xerox test job to AFP.

Important

You can use the **pdxtdownload** command to send jobs to RICOH ProcessDirector hot folders. You might also need the AFP Support feature, which provides Download input devices. You can install the AFP Support feature from the RICOH ProcessDirector web interface. To install the AFP Support feature, follow these steps:

1. In the RICOH ProcessDirector web interface, go to **Administration** → **System** → **Features**.
2. In the **Feature Manager** panel, select the AFP Support feature, then click **Apply**.
3. Wait for the AFP Support feature to be installed on your system.

Use this procedure to set up RICOH ProcessDirector for use with RICOH InfoPrint XT for converting the test job. In this configuration, RICOH InfoPrint XT and RICOH ProcessDirector process the test job through (1) a Hot Folder input device and (2) a workflow. You can create the workflow first, so that you can provide its name when you create the Hot Folder input device.

Note

This procedure is different from the one for setting up RICOH ProcessDirector to convert your production Xerox jobs. See RICOH ProcessDirector configuration tasks, p. 49.

1. Log in to RICOH ProcessDirector using the **aiw** user ID.
2. To create a workflow:
    1) Click on the **Workflow** tab. Select **Workflows**, then select the icon to **Add workflow**.
    2) Under **Name**, enter an appropriate workflow name, such as PDXTTest.
    3) Under **Description**, specify that this workflow will process the InfoPrint XT test job from a Hot Folder input device.
    4) Click **Save**.
    5) In the **Workflow Editor** panel, verify that your workflow includes these steps:

        Receive

        Click the **SetJobPropsFromTextFile** Step Template and drag it into the **Receive** step. Then, set this property:

        Step restart type: select **Receive**

        Prepare

        Click the **RunExternalProgram** Step Template and drag it into the **Prepare** step. Then, set these properties:

        a. **External command**: enter this command:

```
/opt/infoprint/pdxt/bin/pdxtx2afp -i ${getFileName(print,unknown,read)}
-o ${getFileName(print,afp,write)} -p -opa=jobname=PDXTTEST
```

Note

If you copy this command from the PDF of this publication, first paste the command into an intermediate editor session and ensure that the entire command is on a single line. Then, copy the single line command and paste it into the **External command** window.

b. **Valid return codes**: enter **0** to accept only return code 0 from **pdxtx2afp**, or enter **0,4** to accept return codes 0 and 4 from **pdxtx2afp**.

c. **External control file template**: leave blank.

Assemble

Click the **UseInlineFormDefinition** Step Template and drag it into the **Assemble** step.

Print

Click this Step Template and drag it into the **Print** step:

PrintJobs

a. You can specify a **Requested printer**.

b. **Form Definition**: leave blank.

c. **AFP resource path**; if the **pdxtx2afp** parameters specify **xinlr=all** to include AFP resources inline with converted LCDS or metacode jobs, you can leave **AFP resource path** blank.

If the **pdxtx2afp** parameters do not specify **xinlr=all,** you must specify an **AFP resource path**, such as: **/var/pdxt/resources/pdxttest**.

Note

pdxttest is the resource group where you loaded the resources from **/opt/infoprint/pdxt/testjob**.

Complete

Click these Step Templates and drag them into the **Complete** step:

RetainCompletedJobs

RemoveJobs

6) Click the **Save and Enable workflow** icon.

7) Open the **Step Templates** tab and make sure that all of the templates used in your workflow are enabled.

3. To create a Hot Folder Input Device:

1) Open the **Administration** tab. Click **Devices**, then **Input Devices**.

2) Click **HotFolderLineData** → **Actions** → **Copy**, to start creating a new Hot Folder input device based on the shipped **HotFolderLineData** input device.

3) Select **Show all tabs**.

4) Define the Hot Folder input device properties as follows:

Note

For the properties not listed here, use the default value, such as **Not set**, or leave the field blank.

General

a. **Input device name**: specify an appropriate name, such as HotFolderPDXTTest.

b. **Input device description**: specify that this Hot Folder input device will receive the InfoPrint XT test job.

c. **Parent server**: enter **System**.

d. **Polling interval (seconds)**: enter the shortest interval that is appropriate for your environment, such as **5**.

e. **Submit step**: select **SubmitInputFiles**.

f. **Workflow**: select **ParentNoPrint**.

g. **Child workflow**: specify the name of the workflow you created for the test job, such as PDXTTest.

h. **Child workflow initialization step**: leave blank.

k. **Maximum errors**: choose an appropriate value to define the maximum number of errors that can be reached.

Batching

a. **Batching method**: select **None**.

b. **Data patterns**: enter **.*$**.

Advanced

a. **Child workflow parsing rules**: leave blank.

b. **Convert overrides**: leave blank.

4. After installing InfoPrint XT, restart your Linux system in order to propagate the environment variable changes to all users and applications.
5. After installing RICOH InfoPrint XT, stop and restart RICOH ProcessDirector.

To test the RICOH ProcessDirector and RICOH InfoPrint XT installation:

1. Log in to the Linux system with the **aiw1** user name.
2. Make the directory that contains the test job the current directory. From the command line, enter:

```
cd /opt/infoprint/pdxt/testjob
```

3. Load the resources for the test job:

```
pdxtloadres -n '*' -g pdxttest
```

4. Copy the parameter mapping file for the test job to the **/var/pdxt** directory:

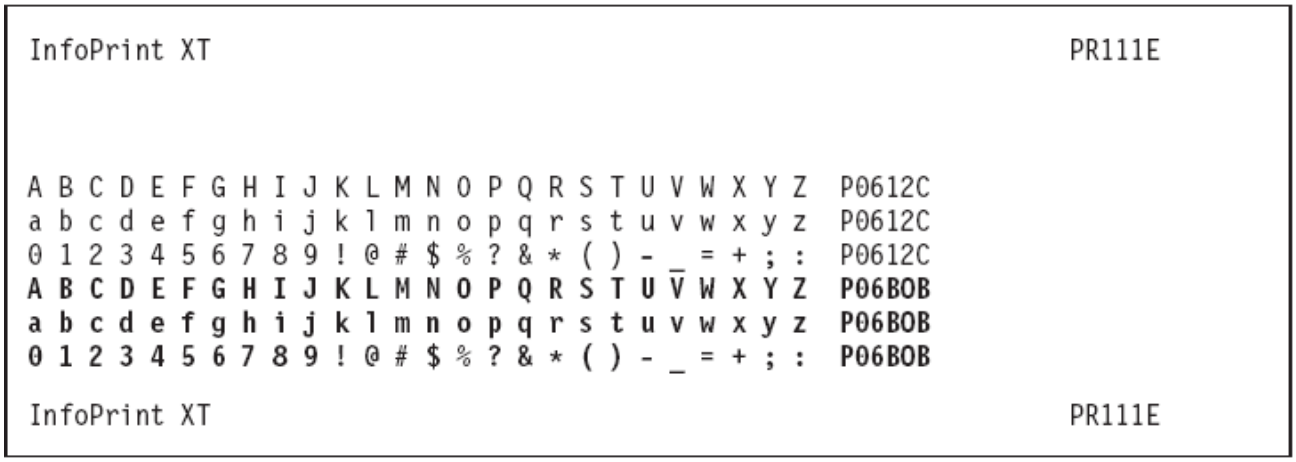
```
cp pdxtx2afp.map /var/pdxt
```

5. Submit the test job (copy to the RICOH ProcessDirector Hot Folder):

```
cp pdxttest.xrxin /aiw/aiw1/System/hf/pdxttest
```

RICOH ProcessDirector 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. The next figure shows an example of the first test page.

RICOH InfoPrint XT test page for a RICOH ProcessDirector and InfoPrint XT installation



Uninstalling RICOH InfoPrint XT

The RICOH InfoPrint XT uninstaller does not remove the license files: **license.key**, **backups/license.key.*n*.bak**. **license.key.ems**, or **backups/license.key.ems.*m*.bak**.

To uninstall RICOH InfoPrint XT:

1. Log in to the Linux system as the root user.
2. If you use InfoPrint Manager with RICOH InfoPrint XT, enter these commands for each InfoPrint Manager actual destination whose configuration is set to accept Xerox jobs:

```
pddisable -c destination adestname

pdset -c destination -x document-formats-supported-=lcds adestname

pdset -c destination -x document-formats-supported-=metacode adestname

pdset -c destination -x transform-sequence-=x2afp adestname

pdenable -c destination adestname
```

Note

1) *adestname* is the name of the actual destination.
2) Make sure that you include the minus sign to the left of the equal sign to remove the value.

3. If you use InfoPrint Manager with RICOH InfoPrint XT, remove the **x2afp** configurable transform object. Enter:

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

servername is the name of the InfoPrint Manager server that contains the transform object.

4. If you use RICOH ProcessDirector with RICOH InfoPrint XT, delete the Hot Folder Input Devices and Job Types (used to submit Xerox jobs) using the RICOH ProcessDirector web interface.
5. Remove the RICOH InfoPrint XT working directory. Enter:

```
rm -rf /var/pdxt
```

Note

Do not remove **/var/pdxt** if you are upgrading a previous version to InfoPrint XT 3.4.

6. Empty the RICOH InfoPrint XT directories for compiled applications exits and for application exit source files:

```
rm -rf /opt/infoprint/pdxt/local/*
```

```
rm -rf /opt/infoprint/pdxt/localsrc/*
```

Note

Do not remove these directories if you are upgrading a previous version to RICOH InfoPrint XT 3.4.

7. Run **/opt/infoprint/pdxt/_uninst/Uninstall**.
8. Choose the uninstall option if the installer asks you if you want to uninstall or reject the current version.
9. Follow the instructions to complete the removal.

Adding a new administrative user name

You typically do installation tasks and configuration tasks while logged in as the root user. Any user name can print jobs through RICOH InfoPrint XT, and you might want to load resources from a user name other than **root**. If you did not use an existing Linux system for and the Linux system is new, you might only have the **root** user name and the other basic system user names. The basic system user names include **daemon, bin, sys, adm, uucp, guest, nobody, lpd,** and **nuucp**. You can create new user names that you can use to load Xerox resources and process Xerox jobs.

To add a new administrative user name:

1. Log in to the Linux system as the root user.
2. From the command line, enter:

```
smit users
```

You see the **Users** SMIT panel.

3. Click **Add a User**. You see the **Add a User** SMIT panel.
4. Update these fields with the values shown. Use the default values for all other fields of the **Add a User** panel:
   - *** User NAME** *xtadmin*
     Use any name that you choose instead of *xtadmin*
   - **ADMINISTRATIVE USER? true**
     To change the value, click the up arrow or the down arrow to the right of the field.
   - **Primary GROUP staff**
   - **Group SET staff,printq**

Note

The **printq** group lets the user enter InfoPrint Manager commands, such as **pdpr**, and lets the user load Xerox resources through RICOH InfoPrint XT.

- **HOME directory /home/***xtadmin*
  If you specified a user name other than *xtadmin*, substitute that name in the value for the home directory.
- **Initial PROGRAM /usr/bin/ksh**

  Note

  1) Linux supports shells other than the Korn shell. If you prefer to use a different shell, enter its path in this field.
  2) Examples in this publication use the Korn shell.
- **Login AUTHENTICATION GRAMMAR compat**
- **Password REGISTRY files**
- **Soft FILE size -1**
- **Soft CPU time -1**
- **Soft DATA segment 544288**
- **Soft STACK size 65536**
- **File Creation UMASK 7**

5. Click **OK** to create the user name.
6. When processing finishes, click **Done**. Press **F12** to exit from SMIT.
7. From the command line, enter:

```
passwd userID
```

userID is the user name that you just created. Linux prompts you twice to enter a new password.

8. Log out from the root user name.

Updating the .profile, .dtprofile, and .krsh files for the new user name

Set up the new user name so that command prompts accessed by that user include the user name and the current directory.

To update files for the new user name:

1. Log in to the Linux system with the new user name.
2. If you are not in the home directory, change to it:

```
cd /home/userID
```

Note

If you do not know the current directory location, enter the **pwd** command.

3. Edit the **.profile** file and add these lines:

```
export HOST=`hostname`
export ENV=$HOME/.krsh
export EDITOR=/bin/vi
```

Save the changes and close the file.

Note

1) You can use the Linux **vi** editor, which you access from the command line. Or, you can use the CDE text editor, which you access from the CDE front panel.
2) The characters around the value **hostname** are grave symbols, not single quotation marks. On most keyboards, the grave symbol is on the key directly above the **Tab** key.
3) To let the user name have access to the **PATH** information that the **/etc/environment** file specifies, make sure that the **PATH** statement in the **.profile** file is similar to this:

```
PATH=$PATH:path
```

path is the path information that existed in the **.profile** file.

4. Log out and then log back in with the new user name. This causes Linux to create a subdirectory, and these files in the home directory for the user:
   - **.dt** subdirectory
   - **.TTauthority** file
   - **.Xauthority** file
   - **.dtprofile** file
   - **.sh_history** file
5. Edit the **.dtprofile** file in the home directory and make sure that the file contains this entry:

```
DTSOURCEPROFILE=true
```

6. Create a **.krsh** file in the home directory. Make sure that the file contains this entry:

```
PS1='($?) LOGIN@$HOST: $PWD=> '
```

Note

The characters around the value are single quotation marks. They prevent Linux from trying to interpret the dollar signs. Also, this format causes Linux to display the return code from the last command that you entered to the left of the command prompt. For example:

```
(12)  root@ballachulish: /tmp/waite/51230=>
```

7. Make sure that the **.krsh** file has **700** permissions:

```
chmod 700 .krsh
```

8. Log out and then log back in to pick up these changes. The command prompt displays like this:

```
(0) userid@hostname: /home/userid=>
```

userid is the user name that you logged in with and *hostname* is the name of the Linux system.

3. InfoPrint Manager configuration tasks

- **Creating the RICOH InfoPrint XT configurable transform**
- **Using the pdxtsetdest command to update InfoPrint Manager actual destinations**

If you use InfoPrint Manager with RICOH InfoPrint XT, you must do these tasks.

These tasks apply to InfoPrint Manager Version 4.5 or later.

These tasks do not apply to installations that do not have InfoPrint Manager installed.

Creating the RICOH InfoPrint XT configurable transform

Use the **pdxtcrtxform** command to create an RICOH 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 RICOH InfoPrint XT requires. For example, it sets the **lcds** and **metacode** values for the **document-formats-supported** attribute.


```
+ – – – – – – – –Programming Interface information – – – – – - – +
```

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

pdxtcrtxform [*servername* [...] | *:]

[*servername* **[...] | *:]**

As an option, specifies the name of one or more InfoPrint Manager servers or all the InfoPrint Manager. If you do not specify a server name, RICOH 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 **pdxtcrtxform** command:

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

  See the InfoPrint Manager documentation listed in the Bibliography, p. 436, as required.
- When the **pdxtcrtxform** 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:

```
                Transform
```

```
Identifier      Library
----------      ---------------------
x2afp           command-line-transform
```

Return codes from the pdxtcrtxform command

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

0

The command successfully created the transform.

EINVAL (22)

An error exists with one of the command options.

ENOENT (2)

The command did not find a server.

E2BIG (7)

You specified both a server name and used ***:** to specify the server.

ENOATTR (61)

A command option is missing.

ETIMEDOUT (110)

The **pdls** 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 codes for Linux, p. 398.

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

Using the pdxtsetdest command to update InfoPrint Manager actual destinations

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

- **document-formats-supported**
  RICOH InfoPrint XT adds **lcds** and **metacode** to the values already supported by the actual destination.
- **transform-sequence**
  RICOH InfoPrint XT adds **x2afp** to the values already supported by the actual destination.

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

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

pdxtsetdest [**-o** **no** | **yes**] *adestname* [**...**]

[-o no | yes]

Specifies whether RICOH InfoPrint XT enables the actual destination to process OTEXT messages. You can specify one of these values:

no

RICOH InfoPrint XT does not enable the actual destination to process OTEXT messages. This is the default.

yes

RICOH InfoPrint XT enables the actual destination to process OTEXT messages.

adestname **[...]**

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

Usage notes

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

- You must create the RICOH InfoPrint XT configurable transform object before you enter the **pdxtsetdest** command. See Creating the RICOH InfoPrint XT configurable transform, p. 45.
- The user name from which you enter the **pdxtsetdest** command must have InfoPrint Manager authorization to enter these commands for actual destinations:
  - **pddisable**
  - **pdenable**
  - **pdls**
  - **pdset**

Streams used by the pdxtsetdest command

The **pdxtsetdest** 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 pdxtsetdest command

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

0

The command successfully updated the specified actual destinations.

EINVAL (22)

An error exists with one of the command options.

E2BIG (7)

You specified an actual destination name that was too long.

ENOATTR (61)

You specified a command option without a value.

ENOENT (2)

You did not specify an actual destination name.

other

Any other return codes that are not in this list are return codes from C functions. See Return codes for Linux, p. 398.

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

4. RICOH ProcessDirector configuration tasks

• Submitting a Xerox job to RICOH ProcessDirector using RICOH InfoPrint XT

If you use RICOH ProcessDirector with RICOH InfoPrint XT, you must do these tasks.

These tasks apply to RICOH ProcessDirector Version 3.4.1 or later.

These tasks do not apply to installations that do not have RICOH ProcessDirector installed.

The RICOH InfoPrint XT data stream converter runs with RICOH ProcessDirector as an external step. When a Xerox job is submitted to RICOH ProcessDirector, it calls RICOH InfoPrint XT to convert the Xerox LCDS or metacode job to AFP.

Important

You can use the **pdxtdownload** command to send jobs to RICOH ProcessDirector hot folders. You might also need the AFP Support feature, which provides Download input devices. You can install the AFP Support feature from the RICOH ProcessDirector web interface. To install the AFP Support feature, follow these steps:

1. In the RICOH ProcessDirector web interface, go to **Administration** → **Utilities** → **Features**.
2. In the **Feature Manager** panel, select the check box next to AFP Support feature, then click **Install.** Review the information in the confirmation window, specify a name for the **Installation display name**, then click **OK** to continue..
3. Wait for the AFP Support feature to be installed on your system.

   Note

   The AFP Support feature is installed with a trial license. To continue using it after the trial period, you must purchase the feature and install a license key for it. If you do not install a license key, the feature stops working at the end of the trial period.

Use this procedure to set up RICOH ProcessDirector for use with RICOH InfoPrint XT. InfoPrint XT and RICOH ProcessDirector process LCDS or metacode jobs through (1) **pdxtdownload**, (2) a Hot Folder input device and (3) a workflow. You can create the workflow first, so that you can provide its name when you create the Hot Folder input device.

1. Log in to RICOH ProcessDirector using the **aiw** user ID.
2. To create a workflow:
   1) Click on the **Workflow** tab. Select **Workflows**, then click **Add** in the upper right corner.
   2) Under **Name**, enter an appropriate workflow name, such as PDXTJobs or XeroxJobs.
   3) Under **Description**, specify that this workflow will process LCDS or metacode jobs from a Hot Folder input device.
   4) Click **CONTINUE**.
   5) In the **Workflow Editor** panel, verify that your workflow includes these steps:

      Receive

      Click the **SetJobPropsFromTextFile** step template and set these properties:

      Step restart type: select **Receive**.

      Job name: enter **${Job.InputFile}**.

Prepare

Click **Show step list** and select **RunExternalProgram** from the **CONNECTIONS** section. Click the **RunExternalProgram** step template and set these properties:

External command: enter this command:

```
/opt/infoprint/pdxt/bin/pdxtx2afp -i ${getFileName(print,unknown,read)}
-o ${getFileName(print,afp,write)} -p -opa=jobname=${Job.Name},
class=${Job.Class},destination=${Job.Destination},
forms=${Job.Form},jobid=${${Job.Description}}
```

Note

If you copy this command from the PDF of this publication, first paste the command into an intermediate editor session and ensure that the entire command is on a single line. Then, copy the single line command and paste it into the **External command** window.

Valid return codes: enter **0** to accept only return code 0 from **pdxtx2afp**, or enter **0,4** to accept return codes 0 and 4 from **pdxtx2afp**.

External control file template: leave blank. Delete any content if already exists.

Assemble

Expand the **AFP TOOLS** section, click the **UseInlineFormDefinition** step template and drag it into the **Assemble** step.

Print

Expand the **PRINT** section, click these step templates and drag them into the **Print** step:

EnableRepositioning

CreatePageRanges

PrintJobs

You can specify a **Requested printer**, **Job Class**, **Job Form**, or **Job Destination**.

Form Definition: leave blank.

AFP resource path; if the **pdxtx2afp** parameters specify **xinlr=all** to include AFP resources inline with converted LCDS or metacode jobs, you can leave **AFP resource path** blank, especially if you are using a mapping file for RICOH InfoPrint XT data stream conversion.

If the **pdxtx2afp** parameters do not specify **xinlr=all,** you must specify an **AFP resource path**, such as: **/var/pdxt/resources/***resgrp*.

Complete

Expand the **WORKFLOW CONTROL** section, click these step templates and drag them into the **Complete** step:

RetainCompletedJobs

RemoveJobs

6) When you are ready to use the workflow, to enable it click **Menu** in the upper right corner and select **Enable**.
7) On the **Workflow** tab, click **Step templates** in the left pane and make sure that all of the templates used in your workflow are enabled.

3. To create a Hot Folder input device:

1) Open the **Administration** tab. Click **Devices**, then **Input Devices**.
2) Click **HotFolderLineData** → **More Actions** → **Copy**, to start creating a new Hot Folder input device based on the shipped **HotFolderLineData** input device.
3) Select **Show all tabs**.
4) Define the Hot Folder input device properties as follows:

Note

For the properties not listed here, use the default value, such as **Not set**, or leave the field blank.

General

Input device name: specify an appropriate name, such as HotFolderPDXT or HotFolderXerox.

Input device description: specify that this Hot Folder input device will receive LCDS or metacode jobs from **pdxtdownload**.

Parent server: enter **System**.

Polling interval (seconds): enter the shortest interval that is appropriate for your environment, such as **5**.

Workflow: select **ParentNoPrint**.

Child workflow: specify the name of a workflow configured to transform Xerox LCDS or metacode jobs by invoking **pdxtx2afp** as an external step.

Child workflow initialization step: select **Not set**.

Folder location: enter the hot folder path that you specified in the **pdxtdownload –h** directive, for example, **/aiw/aiw1/System/hf/pdxt**.

Staging location: add the **/Staged** directory to the **Folder location** path, for example, **/aiw/aiw1/System/hf/pdxt/Staged**.

Maximum errors: choose an appropriate value to define the maximum number of errors that can be reached.

Batching

Batching method: select **List**.

Data patterns: enter **.*$**; RICOH ProcessDirector uses this pattern to recognize input data files sent to the hot folder input device.

Overrides patterns: enter **.*oth$**; RICOH ProcessDirector uses this pattern to recognize *.oth files that are sent to the hot folder input device.

List patterns: enter ***lst$**; RICOH ProcessDirector uses this pattern to recognize LST files that are sent to the hot folder input device.

Advanced

Child workflow initialization step: Not set.

Child workflow parsing rules: leave blank.

4. After installing RICOH InfoPrint XT, restart your Linux system in order to propagate the environment variable changes to all users and applications.
5. After installing RICOH InfoPrint XT, stop and restart RICOH ProcessDirector.

Submitting a Xerox job to RICOH ProcessDirector using RICOH InfoPrint XT

Submit a Xerox job to RICOH ProcessDirector through a hot folder input device and workflow, using RICOH InfoPrint XT and a custom parameter mapping file to define job parameters such as job name, job ID, class, destination, and form.

To submit a Xerox job using a custom parameter mapping file:

1. Create a parameter mapping file named `pdxtx2afp.map`, and specify the parameter values that define the job, such as job name, job ID, class, destination, and form.

   Copy the file to `/var/pdxt`. For more information, see Creating a custom parameter mapping file, p. 61.

   The mapping file can contain multiple entries. Each entry corresponds to a different combination of mapping parameter values.

   For example:

```
#sample1.xrx
jobname=sample1 forms=djde
-x "xjdl=dpljdl xjde=onljde xrecfm=n xlrecl=32756 xcc=m xpcctest=yes xsp=n xacc=y"
-g sample1

#sample2.xrx
dest=sample2 class=D
-x "xjdl=TONL xjde=DFLT xrecfm=f xlrecl=142 xcc=m xsp=n xacc=n"
-g sample2
```

2. Create an `.oth` file with entries that correspond to the mapping parameter values.

   For example, `sample1.oth` contains:

```
Job.Name=sample1
Job.Form=djde
```

   And `sample2.oth` contains:

```
Job.Destination=sample2
Job.Class=D
```

3. Create a `.lst` file that lists the input `.xrx` file name and the `.oth` file name.

   For example, `sample1.lst` contains:

```
sample1.xrx
sample1.oth
```

4. Copy the input `.xrx` file, the `.lst` file, and the `.oth` file to the hot folder.

RICOH ProcessDirector picks up the files from the hot folder, applies the parameter mapping from `pdxtx2afp.map`, and processes the job through the workflow.

5. Customizing RICOH InfoPrint XT

- **Terms used in this chapter**
- **Setting environment variables**
- **Creating a custom parameter mapping file**
- **Using transform directives**
- **Working with the base RICOH InfoPrint XT application exits**
- **Working with InfoPrint Manager-related application exits**
- **Working with RICOH InfoPrint XT AFP structured fields**
- **Working with content-sensitive medium map names**
- **Color customization**
- **Using Raster Image Fonts**

This chapter describes how to customize RICOH InfoPrint XT for Linux processing environment. All procedures in this chapter are optional; you do not have to do them to use RICOH InfoPrint XT.

Terms used in this chapter

Some topics in this chapter use the term *globalID*. In combined InfoPrint Manager for Linux or RICOH ProcessDirector and RICOH InfoPrint XT installations, *globalID* is the InfoPrint Manager or RICOH ProcessDirector global job identifier. A global job identifier consists of the name of the InfoPrint Manager or RICOH ProcessDirector server that processed the job, followed by a colon and a 10-digit number.

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

Setting environment variables

You can set environment variables to control certain aspects of RICOH InfoPrint XT resource processing and job processing. If you set the RICOH InfoPrint XT environment variables in the **/etc/environment** file, they are available to all users on the system. You must log in as the root user before you can update the **/etc/environment** file. After you make changes, you must log out and log back in to pick up the changes to the environment.

Note

1. You can also set environment variables in the **.profile** file for an individual user name. This limits the use of the environment variables to specific user names. The syntax for specifying the environment variables in this file is different from the syntax shown in the next topics, which is specifically for entries in the **/etc/environment** file. Include the **export** command in the **.profile** file. Enclose the values in single quotation marks, as necessary. For example:

```
export PDXTLOADRES_ARGS='-m A4 -s word'
```

2. If you are using InfoPrint Manager with RICOH InfoPrint XT and the InfoPrint Manager server was running when you set an environment variable, shut down and restart the InfoPrint Manager server. Use the InfoPrint Manager **pdshutdown** and **startsrv** commands to shut down and start the InfoPrint Manager server.
3. If you are using RICOH ProcessDirector with RICOH InfoPrint XT and the RICOH ProcessDirector server was running when you set an environment variable, shut down and restart the RICOH ProcessDirector server. Use the RICOH ProcessDirector **stopaiw** and **startaiw** commands to stop and start the RICOH ProcessDirector server.

5

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

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

This shows the format that you use to set the variable:

```
PDXTWORKDIR=/path/directory
```

Note

1. You can only use one working directory at any given time. For example, you cannot use the default **/var/pdxt** directory for some jobs and **/var/mypdxt** for other jobs.
2. If the directory you specify does not exist, RICOH InfoPrint XT creates it.

Controlling the default arguments when you load resources (PDXTLOADRES_ARGS)

You can change the default values that RICOH InfoPrint XT uses for the options of the **pdxtloadres** command. You use this command to load Xerox resources; see Using the pdxtloadres command to load Xerox resources, p. 99. 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**.

Use these formats for the value of the **PDXTLOADRES_ARGS** variable:

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

```
PDXTLOADRES_ARGS='-r'
```

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

- Enclose parameters and values in single quotation marks when you specify a **PDXTLOADRES_ARGS** entry. The following shows entry examples:

```
PDXTLOADRES_ARGS='-m A4 -s word'

PDXTLOADRES_ARGS='-n /xyz/*.fnt'
```

Controlling the default arguments when you process jobs (PDXTX2AFP_ARGS)

You can change the default values that RICOH InfoPrint XT uses when you convert Xerox jobs with the **pdxtx2afp** command. See Using the pdxtx2afp command to process Xerox jobs, p. 154. 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.

Use these formats for the value or values of the **PDXTX2AFP_ARGS** environment variable:

- To specify a single option and value:

```
PDXTX2AFP_ARGS="-g payroll"
```

- To specify the **-x** option with more than one value, use a combination of single and double quotation marks:

```
PDXTX2AFP_ARGS=-x "xjdl=tonl xjde=dflt xclb=pay"
```

- To specify one option and value, and to specify the **-x** option with more than one value, also use a combination of single and double quotation marks:

```
PDXTX2AFP_ARGS=-g payroll -x "xjdl=tonl xjde=dflt xclb=pay"
```

Note

RICOH 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, RICOH InfoPrint XT ignores this environment variable.

Controlling the default arguments when you create and modify cluster database resources (PDXTCLUSTER_ARGS)

You can change the default values that RICOH InfoPrint XT uses for the options of the **pdxtcluster** command. You use this command to create and modify cluster database resources; see Using the pdxtcluster command to create and modify cluster database resources, p. 118. You can use the **PDXTCLUSTER_ARGS** environment variable to specify new default values for the options. For example, you might want the default value for the **-g** option to be **payroll** instead of **common**:

```
PDXTCLUSTER_ARGS=-g payroll
```

Controlling the default arguments when you compile JSLs (PDXTPDL_ARGS)

You can change the default values that RICOH InfoPrint XT uses for the options of the **pdxtpdl** command. You can use the **PDXTPDL_ARGS** environment variable to specify new default values for the options. For example, you might want the default value for the **-g** parameter to be **resgrp** instead of **common**.

Use these formats for the value of the **PDXTPDL_ARGS** variable:

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

```
PDXTPDL_ARGS= -r
```

  This causes RICOH InfoPrint XT to automatically add the **-r** parameter any time you specify the **pdxtpdl** command.

- Enclose parameters and values in double quotation marks when you specify a **PDXTPDL_ARGS** entry. The following shows entry examples:

```
PDXTPDL_ARGS= -g resgrp -r
```

```
PDXTPDL_ARGS= -n "xyz*.jsl"
```

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

You can instruct RICOH InfoPrint XT to include messages about the resource-load process for jobs that use FILE DJDE commands. RICOH InfoPrint XT can write the messages to the **x2afp.lst** file; see x2afp.lst file, p. 197. The **PDXT_AIOLXDFE_TRACE** environment variable controls the disposition of the resource-load messages. Set this variable to **1** to include the messages:

```
PDXT_AIOLXDFE_TRACE='1'
```

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 RICOH 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:

```
PDXT_XR2FAPI_TRACE='1'
```

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 RICOH 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:

```
PDXT_XR2FAPI_TRACE='1'
```

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 form converter (PDXT_XR2RAPI_TRACE)

If you place a service call, the technical support representative might ask you to run a trace of the RICOH InfoPrint XT form converter to aid in diagnosing a problem. The **PDXT_XR2RAPI_TRACE** environment variable controls tracing in the form converter. Set this variable to **1** to activate tracing.

```
PDXT_XR2RAPI_TRACE='1'
```

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 default arguments when you process the ink correlation table (PDXTCOLOR_ARGS)

You can change the default values that RICOH InfoPrint XT uses for the options of the **pdxtcolor** command. You use this command to load Xerox resources; see Using the pdxtcolor command to manage the InfoPrint XT ink correlation table, p. 122. You can use the **PDXTCOLOR_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.

Use these formats for the value of the **PDXTCOLOR_ARGS** variable:

- To specify a single option and value:

```
PDXTCOLOR_ARGS= -g payroll
```

- To specify multiple options and associated values, enclose the options and values in single quotation marks:

```
PDXTCOLOR_ARGS= -m A4 -p no -s all
```

- To specify an option whose value contains embedded blanks, use a combination of single and double quotation marks:

```
PDXTCOLOR_ARGS= -k "midnight blue":lab:15:-50:-65
```

- To specify one or more options with associated values and an option whose value contains embedded blanks, also use a combination of single and double quotation marks:

```
PDXTCOLOR_ARGS=-m A4 -e "dfault.green.very light green":k:lab:90:-30:10
```

Controlling the content of error messages (PDXT_INTMSGIDS)

Use the **PDXT_INTMSGIDS** environment variable to control the level of detail that RICOH 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, RICOH 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 where 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**.

```
pdxtx2afp: (aioxcx2a2860) 5016-001 The command option -a is not valid.
```

Set the **PDXT_INTMSGIDS** variable to **1** to include module and line number information:

```
PDXT_INTMSGIDS=1
```

Remove the environment variable to suppress the module and line number information.

Controlling the format of the error sheet (PDXT_MSG*xxxxxxx*)

If you submit a Xerox job for processing in a combined InfoPrint Manager and RICOH InfoPrint XT installation and severe errors occur that prevent RICOH InfoPrint XT from generating AFP output, RICOH InfoPrint XT generates an error sheet. RICOH 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. RICOH InfoPrint XT uses Linux standard input (STDIN) to pass the messages to the command specified by the environment variable. Then, RICOH InfoPrint XT pipes the output from the command to the InfoPrint Manager **line2afp** command. If you do not set this variable, RICOH InfoPrint XT uses **fold -w 120**.

PDXT_MSGFONTDEF

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

PDXT_MSGFORMDEF

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

PDXT_MSGPAGEDEF

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

Note

When RICOH 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: **/var/pdxt/jobs/***jobname-jobnumber-nn.*.

Environment variables for directives

Two other RICOH 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, p. 65
- Enabling download directives, p. 179

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 and Job Descriptor Entry (JDE) pair. You might also specify other parameters that further define the job, such as how to process stapling commands. RICOH 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 RICOH 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 Using the pdxtx2afp command to process Xerox jobs, p. 154. Also see the **/opt/infoprint/pdxt/testjob/pdxtx2afp.map** file, which is a mapping file that you can use with the test job that RICOH InfoPrint XT supplies.

Note

Any parameters that you specify with the **pdxtx2afp** command override the same parameters in the mapping file.

Note

1. Any parameters that you specify with the **pdxtx2afp** command override the same parameters in the mapping file.
2. If you use InfoPrint Manager or RICOH ProcessDirector with RICOH 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 RICOH InfoPrint XT pdxtdownload program does, p. 164.

Parameter mapping file syntax rules

You can control how RICOH 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 **/var/pdxt** directory. Make sure that the group for the file is **printq** and that the file has 640 permissions. The table below shows the format of an entry in a mapping file.

Note

If the installation uses the **PDXTWORKDIR** environment variable, store the parameter mapping file in the directory that the environment variable specifies, instead of the **/var/pdxt** directory.

Format of the transform parameter mapping file

Mapping file lines	Explanation
# text	Comments
keyword=value	Pass-through parameter and value to match
parameter	Conversion parameter to set
parameter	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; RICOH InfoPrint XT applies the associated parameters to every job that it processes.

You can assign the **-g**, **-r**, **-t**, and **-x** parameters. 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 regular expressions for values only if the value to be matched is a single-character value.
- 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.
- RICOH 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, RICOH 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.
- RICOH InfoPrint XT checks each keyword group in the file. If a job matches more than one keyword group, the job can use parameters from each group it matches.

  For the **-g**, **-r**, and **-t** parameters, if the job matches several keywords groups that specify the same parameter, RICOH InfoPrint XT uses the value from the last group.

  For the **-x** parameter, RICOH InfoPrint XT merges the conversion parameters from all matched keyword groups into the final **pdxtx2afp** command. For example, if one matched keyword group specifies **-x xcopies=5** and another specifies **-x xclb=pay1**, RICOH InfoPrint XT includes both **xcopies** and **xclb** in the final command. If more than one matched keyword group specifies the same parameter, for example **-x xjdl=strton** and **-x xjdl=dpljdl**, RICOH InfoPrint XT uses the last value.

The next table is an example of a completed parameter mapping file.

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           #
# /var/pdxt/resources/inventory.                     #

#-------------------------------------------------------#
class=D
class=E
jobname=INV*
   -g inventory

#-------------------------------------------------------#
# Jobs whose names start with PAY* use AFP           #
# resources in the /pay/secure/monthly directory     #

#-------------------------------------------------------#
jobname=PAY*
   -r /pay/secure/monthly
```

Verifying the parameter specification of the mapping file

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

```
5016-501 2010-04-04  21:51:40  (pid 83951854) - transform started

5016-515 InfoPrint XT received these job attributes for matching with
         keywords in parameter mapping file pdxtx2afp.map:
5016-516   class=a dest=mysys forms=frm1 jobid=(none) jobname=billspay

5016-517 InfoPrint XT matched these job attribute keywords in parameter
         mapping file pdxtx2afp.map:
5016-518   class=a dest=mysys forms=frm1 jobname=billspay

5016-503 Transform arguments (/var/pdxt/pdxtx2afp.map)

5016-504 -x "xjde=pay1 xjdl=bills"
```


Using transform directives

RICOH 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 RICOH 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 **/var/pdxt/jobs/***globalID*. The default is that InfoPrint XT does not capture the InfoPrint Manager attributes.

```
[ -c jobcapturearchive ]
```

Specifies the name of an archive file that contains the captured job information, including the input and the output files, the data stream conversion log, and the resources used to convert the job. When you specify the **-c** parameter in the transform directives, **pdxtx2afp** forces the **xinlr=all** parameter in order to capture all the resources required by the input stream. InfoPrint XT saves the job capture archive as `jobcapturearchive.tar.gz` in the job directory **/var/pdxt/jobs/***jobname-jobID***-n** or the location specified by **-w** datastream conversion parameter.

```
[ -d jobdir | resdir ]
```

Specifies the directory that InfoPrint XT captures for a specific job. **jobdir** causes InfoPrint XT to capture all files in the working directory for the job. **resdir** causes InfoPrint XT to capture all files in the resource directories for the job. This includes all informational files and the AFP resources.

Note

1. Use this directive only at the direction of a technical support representative.
2. You can specify **-d** more than once so that you can capture both the working directory and the resource directories.
3. InfoPrint XT only uses this directive if file descriptor nine was defined when the **pdxtx2afp** command was issued, and if the **pax** command is available. InfoPrint XT writes the output to the file that file descriptor nine specifies. For example: `9 > myoutfile`
4. To capture InfoPrint XT diagnostic job information, add the **–a** *jobcapturearchive* parameter to the **pdxtx2afp** command. See Using the pdxtx2afp command to process Xerox jobs, p. 154. The **pdxtcapture** command is deprecated and is no longer operational.

```
[ -e "exitname argument..." ]
```

Specifies an argument or arguments that InfoPrint XT passes to a specific application exit program. *exitname* specifies the name of the application exit program. Valid names are:

- **aioxlxae** for the transform accounting application exit. See Setting up a transform accounting application exit, p. 69.
- **aioxlxbe** for the transform begin application exit. See Setting up a transform begin application exit, p. 72.
- **aioxlxie** for the transform input application exit. See Setting up a transform input application exit, p. 74.
- **aioxlxoe** for the transform output application exit. See Setting up a transform output application exit, p. 77.
- **aioxlxte** for the transform end application exit. See Setting up a transform end application exit, p. 79.

The application exit program controls the format of the arguments and the arguments that you can specify. Enclose the program name and the argument string in double quotation marks or escaped quotation marks, depending on the context.

You can specify the **-e** directive more than one time, with different options. If you specify more than one **-e** directive for the same application exit, InfoPrint XT sends all the arguments to the application exit. The various activation methods and notes in "Activating transform directives", p. 67 show examples of passing arguments to application exit programs.

```
[ -j0 | -j1 ]
```

Specifies whether InfoPrint XT enables online 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. If you enter the **pdxtx2afp** command directly, the working directory is **/var/pdxt/jobs** 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 **pdxtx2afp** 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.
- **aioxlxie.in -** Saves the Xerox input data sent to the **aioxlxie** application exit.
- **aioxlxie.out -** Saves the Xerox output generated by the **aioxlxie** application exit.
- **aioxlxie -** Saves both the input to, and the output from, the **aioxlxie** application exit.
- **aioxlxoe.in -** Saves the AFP input data sent to the **aioxlxoe** application exit.
- **aioxlxoe.out -** Saves the AFP output data generated by the **aioxlxoe** application exit.
- **aioxlxoe -** Saves both the input to, and the output from, the **aioxlxoe** application exit.

Note

Multiple occurrences of the **-t** directive are cumulative. For example, you can specify **-t aioxlxie.in** with the **PDXTX2AFP_DIRECTIVES** environment variable and specify **-t aioxlxie.out** with the **-t** command option attribute. In this case, InfoPrint XT saves both the input to, and the output from, the **aioxlxie** application exit. 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 overrides 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 Conversion parameters for converting Xerox Jobs, p. 199.

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:all2
```

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 RICOH InfoPrint XT transform directives. RICOH InfoPrint XT checks for an environment variable first and for a directives file second. If you enter the **pdxtx2afp** command directly, RICOH InfoPrint XT then checks for the **-t** command option. If you use InfoPrint Manager with RICOH InfoPrint XT, RICOH 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 system after you add the environment variable.

These are examples of setting values for the environment variable in the **/etc/environment** file:

```
PDXTX2AFP_DIRECTIVES='-e "aioxlxie OFFSET_ALTBIN"'

PDXTX2AFP_DIRECTIVES='-d jobdir -d resdir'
```

/var/pdxt/pdxtx2afp.directives file

This is a plain text file that contains the directives. Each directive entry is specific to a destination. The destination is the destination that the **-p** option of the **pdxtx2afp** command specifies.This is a plain text file that contains the directives. Each directive entry is specific to a destination. 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, pass an argument to the #
# transform input application exit.             #
#-----------------------------------------------#
*: -e 'aioxlxie OFFSET_ALTBIN'


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

After you create the **pdxtx2afp.directives** file in the **/var/pdxt** directory, make sure that the group for the file is **printq** and that it has 640 permissions. For example:

```
-rw-r-----  1  xtadmin  printq  0 Sep 03 12:02 pdxtx2afp.directives
```

You can use the Linux **chgrp** and **chmod** commands, as necessary, to set the group and the permissions.

-t command option of the pdxtx2afp 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 pdxtx2afp command to process Xerox jobs, p. 154.

document-comment document attribute

If you use InfoPrint Manager with RICOH 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 RICOH InfoPrint XT transform directive with the RICOH InfoPrint XT **document-comment** attribute:

```
document-comment="PDXTX2AFP_DIRECTIVES: -t x2afp.out -k1"
```

Note

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'"
```

2. If you specify a transform directive that can have several values with the **pdpr -x** command option and the **document-comment** attribute, you must further delimit the string. Include the backslash, \, escape character:

```
 -x "document-comment='PDXTX2AFP_DIRECTIVES: -e \'aioxlxie RECFM=VB\''"
```

Note

If you specify more than one occurrence of the **-a**, **-j**, or **-k** transform directive using more than one method, RICOH InfoPrint XT uses the last occurrence of the directive. For example, if you specify **-j** with the **PDXTX2AFP_DIRECTIVES** environment variable and with the **-t** command option, RICOH InfoPrint XT uses the value that the **-t** command option specifies.

Working with the base RICOH InfoPrint XT application exits

5

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

RICOH InfoPrint XT provides application exits that you can use to control the various stages of the job submission process and the transform process. This section presents the application exits in the order in which RICOH InfoPrint XT calls them.

Setting up a transform accounting application exit

RICOH InfoPrint XT provides a transform accounting application exit, **aioxlxae**, which you can use to capture transform-specific information from the data stream conversion process. Use this information for purposes such as billing. The application exit does not capture information about the printing process. If you use RICOH ProcessDirector with RICOH InfoPrint XT, you can use the RICOH ProcessDirector accounting functions for printing statistics. You can use the **xcaobs** parameter to control whether RICOH InfoPrint XT captures accounting information.

RICOH InfoPrint XT passes these options to the application exit:

-e *arguments*

Specifies any application exit arguments that were specified with the **-e** transform directive.

-j *jobname-jobID-n*

Specifies the job identifier to the application exit. The job identifier that the **-j** option specifies is in the form `jobname-jobID-n`.

-p *passthru_values*

You can set the **-p** job option with the **pdxtx2afp** command.. See Using the pdxtx2afp command to process Xerox jobs, p. 154.

-q *dest*

It is the destination that the **-p** option for the job specifies.

-s *submit_method*

Specifies the job-submission method. *submit_method* is:

infoprint

InfoPrint Manager initiated the transform.

pdxtx2afp

The **pdxtx2afp** command initiated the transform.

-x *"conversion_parameters"*

Specifies all the conversion parameters that RICOH InfoPrint XT uses when it converts the Xerox job to AFP. The set of conversion parameters can contain more than one occurrence of a specific parameter. In this case, RICOH InfoPrint XT uses the value for the last occurrence of the parameter.

-w *directory*

Specifies the name of the RICOH InfoPrint XT working directory. Typically, this is **/var/pdxt**.

-t *type*

Specifies the type of accounting information. This corresponds to the point in the transform process at which RICOH InfoPrint XT gathered the information. Valid types are:

AIOX2ABC

RICOH InfoPrint XT generates a single **AIOX2ABC** observation when it starts the data stream conversion process.

AIOX2AOC

When data stream conversion finishes for a report in the job, RICOH InfoPrint XT generates a single **AIOX2AOC** observation for the report.

AIOX2AEC

RICOH InfoPrint XT generates a single **AIOX2AEC** observation when data stream conversion finishes for the job.

Note

For specific information about the types of accounting information, see Components of transform accounting observations, p. 71.

-l *level*

Specifies the level of detailed accounting information. This corresponds to the data format. If RICOH InfoPrint XT changes the format of the detailed accounting information, it increments the level. This makes it possible for **aioxlxae** to differentiate between records that were built with the original format and records built with a new format. The initial level is **0**.

-i *information*

Specifies the detailed accounting information for the three observation types, as described in Components of transform accounting observations, p. 71.

Note

The accounting application exit must ignore any command options passed to it that it does not recognize. RICOH InfoPrint XT can then add command options without impacting a customized accounting application exit.

Input and output data streams for the transform accounting application exit

RICOH InfoPrint XT communicates with the application exit using streams:

fd0 (STDIN)

RICOH InfoPrint XT does not pass any data to the standard input of the application exit.

fd1 (STDOUT)

RICOH InfoPrint XT redirects the standard output from the application exit to **/dev/null**.

fd2 (STDERR)

RICOH InfoPrint XT redirects the standard error from the application exit to **/dev/null**.

Components of transform accounting observations

The RICOH InfoPrint XT accounting observations consist of three distinct components:

1. **Type** indicates where in the transform process the observation took place.
2. **Level** is a number the indicates the version or the format of the observation information.
3. **Information** contains details specific to the observation type.

These accounting observations pertain to the conversion of the Xerox data stream, and not to the actual number of pages that print on the printer.

For the **AIOX2ABC** observation at level 0, the detailed information is always empty.

The next table shows the information that RICOH InfoPrint XT reports for the **AIOX2AOC** observation at level 0. RICOH InfoPrint XT reports this observation when the data stream conversion process finishes processing a report in a job. RICOH InfoPrint XT creates one observation for each report.

AIOX2AOC accounting observation for level 0

Offset	Length	Description
0	10	Report number
10	6	Job number (HJOBNO)
16	16	Report name (HPRTNA)
32	6	Starting JDE
38	6	Starting JDL
44	10	Maximum copy count
54	31	Department name

85	10	Graphic images read
95	1	Collate (Y | N)
96	1	Duplex (Y | N)
97	1	Copy sensitive (Y | N)
98	10	Pages (impressions) converted
108	10	Graphic pages (impressions) converted
118	10	Simplex pages (impressions) converted
128	10	Duplex pages (impressions) converted
138	10	Lines converted

The next table shows the information that RICOH InfoPrint XT reports for the **AIOX2AEC** observation at level 0. RICOH InfoPrint XT reports this observation when the data stream conversion process finishes processing a job. RICOH InfoPrint XT creates one observation for each job.

AIOX2AEC accounting observation for level 0

Offset	Length	Description
0	10	Return code from the data stream conversion process.

Customizing the sample transform accounting application exit

RICOH InfoPrint XT provides a sample of the transform accounting application exit in the **/opt/infoprint/pdxt/samples** directory. The directory contains **aioxlxae**, which is the compiled sample application exit, and **aioxlxae.c**, which is the source. The sample accounting application exit writes the accounting information to the **/var/pdxt/aioxlxae.log** file. For information about how to use or modify the sample application exit, read the prolog of the **aioxlxae.c** source file.

Setting up a transform begin application exit

RICOH InfoPrint XT provides a transform begin application exit, **aioxlxbe**. RICOH InfoPrint XT calls this application exit before it begins to read the Xerox input data stream. Use the transform begin application exit to:

- Do initialization work before the transform process.
- Log the transform start time.
- Prevent the transform from running under certain conditions.
- Cause RICOH InfoPrint XT to transform jobs sequentially instead of concurrently.

RICOH InfoPrint XT passes these options to the application exit:

-e *arguments*

Specifies any application exit arguments that the **-e** transform directive specified.

-j *jobname-jobID-n*

Specifies the job identifier to the application exit. The job identifier that the **-j** option specifies is in the form `jobname-jobID-n`.

-p *passthru_values*

Specifies the same values that the **-p** option for the job specifies, if it is present. You can set the **-p** job option with the **pdxtx2afp** command. See Using the pdxtx2afp command to process Xerox jobs, p. 154 for more information.

-q *dest*

Specifies the destination for the job. It is the destination that the **-p** option for the job specifies.

-s *submit_method*

Specifies the job-submission method. `submit_method` is:

infoprint

InfoPrint Manager initiated the transform.

pdxtx2afp

The **pdxtx2afp** command initiated the transform.

-x '*conversion_parameters*'

Specifies all the conversion parameters that RICOH InfoPrint XT uses when it converts the Xerox job to AFP. The set of conversion parameters can contain more than one occurrence of a specific parameter. In this case, RICOH InfoPrint XT uses the value for the last occurrence of the parameter.

-U *update_file*

If InfoPrint Manager passes the **%u** substitution control sequence to RICOH InfoPrint XT, the **-U** option specifies the name of the InfoPrint Manager status file for the InfoPrint Manager Configurable Transform Subsystem. The status file contains updates for certain attributes, and the transform begin application exit can use the InfoPrint Manager **transform_update** command to make changes to the file. For more information, see the InfoPrint Manager documentation. Bibliography, p. 436 lists InfoPrint Manager publications.

-w *directory*

Specifies the name of the RICOH InfoPrint XT working directory. Typically, this is **/var/pdxt**.

Note

The application exit must ignore any command options passed to it that it does not recognize. RICOH InfoPrint XT can then add command options without impacting the operation of a customized application exit.

Input and output data streams for the transform begin application exit

RICOH InfoPrint XT communicates with the application exit using streams:

fd0 (STDIN)

RICOH InfoPrint XT does not pass any data to the standard input of the application exit.

fd1 (STDOUT)

RICOH InfoPrint XT redirects the standard output from the application exit to .

fd2 (STDERR)

RICOH InfoPrint XT captures anything that is written to standard error. RICOH InfoPrint XT writes the information from standard error to the **aioxlxbe.lst** file in the working directory for the job.

Customizing the sample transform begin application exit

RICOH InfoPrint XT provides a sample of the transform begin application exit in the **/opt/infoprint/pdxt/samples** directory. The directory contains **aioxlxbe**, which is the compiled sample application exit, and **aioxlxbe.c**, which is the source. The sample application exit logs the transform start time for jobs. It appends this information to the **/var/pdxt/transform.log** file; it does not overwrite previous entries. In addition, it prevents the transform from running during user-specified times. For information about how to use or modify the sample application exit, read the prolog of the **aioxlxbe.c** source file.

Setting up a transform input application exit

RICOH InfoPrint XT provides a transform input application exit, **aioxlxie**. Use the application exit to modify the input data stream of the Xerox job before the data stream conversion process. The shipped **aioxlxie** transform input application exit allows you to convert several different input data formats into the format that RICOH InfoPrint XT expects for online Xerox jobs. The data stream conversion process converts the job to AFP.

RICOH InfoPrint XT passes these options to the application exit:

-e *arguments*

Specifies any application exit arguments that were specified with the **-e** transform directive.

The syntax for **aioxlxie** is:

```
aioxlxie -e [ NONE ] [ RECFM=V | VB | VI ]
     [ BARR=SPOOL | TBV | S370 | METABAR2 | COMPUSET | METABAR3 | VM | VBM ]
     [ BARR=SPOOL | TBV | S370 | METABAR2 | COMPUSET | METABAR3 | VM | VBM ]
```

NONE

aioxlxie reads from standard input and writes to standard output with no changes to the data stream.

The remaining parameters describe variable length formats of the input data stream:

Note

If you specify any of these **aioxlxie** parameters, you must also specify the **xrecfm=variable** data stream conversion parameter.

RECFM=V

unblocked, variable-length records; records are delimited by 4-byte z/OS record descriptor words

RECFM=VB

blocked, variable length records; blocks are delimited by 4-byte z/OS block descriptor words; records are delimited by 4-byte z/OS record descriptor words

RECFM=VI

blocked, variable length records; records are delimited by 4-byte length fields; the first two bytes of the length fields contain the record length in little-endian format; the length value does not include the 4 bytes of the length field.

BARR=SPOOL

Barr Systems **SPOOL** format

BARR=TBV

Barr Systems **S370** | **METABAR2** | **COMPUSET** or **METABAR3** format; **aioxlxie** automatically determines which format is used and invokes the appropriate exit function

BARR=S370

Barr Systems **S370** format

BARR=METABAR2

same as **BARR=S370**

BARR=COMPUSET

same as **BARR=S370**

BARR=METABAR3

Barr Systems **METABAR3** format

BARR=VM

same as **RECFM=V**

BARR=VBM

same as **RECFM=VB**

CRLF=[a | e] [c] [t] [:i=a | e | s]

input records are delimited by ASCII carriage returns (x'0D') and line feeds (x'0A'):

c

aioxlxie generates ANSI carriage control characters

a

generated ANSI carriage control characters are ASCII

e

generated ANSI carriage control characters are EBCDIC; if you specify **CRLF=c**, this is the default

t

aioxlxie translates the output from ASCII to EBCDIC.

i

input data type: if specified, this must be the last **CRLF** flag; valid syntax and values are.

:i = a

ASCII input data; this is the default

:i = e

EBCDIC input data

:i = s

iSeries SCS (SNA Character String) input data

METABAR and **METASPUR** formats are the same as **CRLF**.

-j *jobname-jobID-n*

Specifies the job identifier to the application exit. The job identifier that the **-j** option specifies is in the form `jobname-jobID-n`.

-p *passthru_values*

Specifies the same values that the **-p** option for the job specifies, if it is present. You can set the **-p** job option with the **pdxtx2afp** command. See Using the pdxtx2afp command to process Xerox jobs, p. 154 for more information.

-s *submit_method*

Specifies the job-submission method. *submit_method* is:

infoprint

initiated the transform.

pdxtx2afp

The **pdxtx2afp** command initiated the transform.

-q *dest*

Specifies the destination for the job. It is the same destination that the **-p** option for the job specifies.

-U *update_file*

If InfoPrint Manager passes the **%u** substitution control sequence to RICOH InfoPrint XT, the **-U** option specifies the name of the InfoPrint Manager status file for the InfoPrint Manager Configurable Transform Subsystem. The status file contains updates for certain attributes, and the transform input application exit can use the InfoPrint Manager command to make changes to the file. For more information, see the InfoPrint Manager documentation. Bibliography, p. 436 lists InfoPrint Manager publications.

-x "*conversion_parameters*"

Specifies all the conversion parameters that RICOH InfoPrint XT uses when it converts the Xerox job to AFP. The set of conversion parameters can contain more than one occurrence of a specific parameter. In this case, RICOH InfoPrint XT uses the value for the last occurrence of the parameter.

Note

The application exit must ignore any command options passed to it that it does not recognize. RICOH InfoPrint XT can then add command options without impacting a customized application exit.

Input and output data streams for the transform input application exit

RICOH InfoPrint XT passes data to the transform input application exit using streams, and the application exit passes data back to RICOH InfoPrint XT:

fd0 (STDIN)

RICOH InfoPrint XT uses standard input to pass the original Xerox job to the transform input application exit.

fd1 (STDOUT)

The transform input application exit must use standard output to pass the Xerox job back to RICOH InfoPrint XT. The Xerox job can be in its original format, or it might contain modifications that the application exit made. The function of the transform input application exit determines the format.

fd2 (STDERR)

RICOH InfoPrint XT captures anything that is written to standard error. RICOH InfoPrint XT writes the information from standard error to the **aioxlxie.lst** file in the working directory for the job. If the conversion process fails to produce AFP output, RICOH InfoPrint XT includes the standard error information on the error sheet for the job.

Note

The transform input application exit must always use unbuffered input/output (I/O).

Customizing the sample transform input application exit

RICOH InfoPrint XT provides a sample of the transform input application exit in the **/opt/infoprint/pdxt/samples** directory. The directory contains **aioxlxie**, which is the compiled sample application exit, and **aioxlxie.c**, which is the source. The sample transform input application exit translates various record formats to the variable record format that RICOH InfoPrint XT expects. For information about how to use or modify the application exit, read the prolog of the **aioxlxie.c** source file.

Setting up a transform output application exit

RICOH InfoPrint XT provides a transform output application exit, **aioxlxoe**, which can modify the AFP output produced by the data stream conversion process. RICOH InfoPrint XT passes these options to the application exit:

-e *arguments*

Specifies any application exit arguments that were specified with the **-e** transform directive.

-i *filename*

Specifies the file identifier of the file that contains the original Xerox input data. RICOH InfoPrint XT only passes this option if the input data passes to the **pdxtx2afp** command from a file. If the input data passes through standard input, RICOH InfoPrint XT does not pass the **-i** option to **aioxlxoe**.

-j *jobname-jobID-n*

Specifies the job identifier to the application exit. The job identifier that the **-j** option specifies is in the form *jobname-jobID-n*.

-p *passthru_values*

Specifies the same values that the **-p** option for the job specifies, if it is present. You can set the **-p** job option with the **pdxtx2afp** command. See Using the pdxtx2afp command to process Xerox jobs, p. 154 for more information.

-q *dest*

Specifies the destination for the job. It is the destination that the **-p** option for the job specifies.

-s *submit_method*

Specifies the job-submission method. `submit_method` is:

infoprint

initiated the transform.

pdxtx2afp

The **pdxtx2afp** command initiated the transform.

-U *update_file*

If InfoPrint Manager passes the **%u** substitution control sequence to RICOH InfoPrint XT, the **-U** option specifies the name of the InfoPrint Manager status file for the InfoPrint Manager Configurable Transform Subsystem. The status file contains updates for certain attributes, and the transform output application exit can use the InfoPrint Manager **transform_update** command to make changes to the file. For more information, see the InfoPrint Manager documentation.

-x "*conversion_parameters*"

Specifies all the conversion parameters that RICOH InfoPrint XT used when it converted the Xerox job to AFP. The set of conversion parameters can contain more than one occurrence of a specific parameter. In this case, RICOH InfoPrint XT uses the value for the last occurrence of the parameter.

Note

The application exit must ignore any command options passed to it that it does not recognize. RICOH InfoPrint XT can then add command options without impacting the operation of a customized application exit.

Input and output data streams for the transform output application exit

RICOH InfoPrint XT passes data to the transform output application exit using streams, and the application exit passes data back to RICOH InfoPrint XT:

fd0 (STDIN)

RICOH InfoPrint XT uses standard input to pass the converted, AFP version of the Xerox job to the transform output application exit.

fd1 (STDOUT)

The transform output application exit must use standard output to pass the AFP job back to RICOH InfoPrint XT. The AFP job can be in its original format, or it might contain modifications that the application exit made. The function of the application exit determines the format.

fd2 (STDERR)

RICOH InfoPrint XT captures anything that is written to standard error. RICOH InfoPrint XT writes the information from standard error to the **aioxlxoe.lst** file in the working directory for the job. If the conversion process failed to produce AFP output, RICOH InfoPrint XT includes the standard error information on the error sheet for the job.

Note

The transform output application exit must always use unbuffered I/O.

Customizing the sample transform output application exit

RICOH InfoPrint XT provides a sample of the transform output application exit in the **/opt/infoprint/pdxt/samples** directory. This directory contains **aioxlxoe**, which is the compiled sample application exit, and **aioxlxoe.c**, which is the source. The sample transform output application exit causes any pages that the job pulls from the alternate bin of the printer to produce an offset stack change. For information about how to use or modify the application exit, read the prolog of the **aioxlxoe.c** source file.

Setting up a transform end application exit

RICOH InfoPrint XT provides a transform end application exit, **aioxlxte**. RICOH InfoPrint XT calls this exit after it writes the AFP data stream from the conversion process. Use the transform end application exit to:

- Do work after the transform process.
- Log the transform completion time.
- Process messages from the transform.

RICOH InfoPrint XT passes these options to the application exit:

-# *pages*

Specifies the number of page impressions that the transform process produced.

-c *return_code*

Specifies the return code from the transform process.

-e *arguments*

Specifies any application exit arguments that were specified with the **-e** transform directive. See Using transform directives, p. 65.

-j *jobname-jobID-n*

Specifies the job identifier to the application exit. The job identifier that the **-j** option specifies is in the form *jobname-jobID-n*.

-p *passthru_values*

Specifies the same values that the **-p** option for the job specifies, if it is present. You can set the **-p** job option with the **pdxtx2afp** command.

-q *dest*

Specifies the destination for the job. It is the destination that the **-p** option for the job specifies.

-s *submit_method*

Specifies the job-submission method. *submit_method* is:

infoprint

InfoPrint Manager initiated the transform.

pdxtx2afp

The **pdxtx2afp** command initiated the transform.

-U *update_file*

If InfoPrint Manager passes the **%u** substitution control sequence to RICOH InfoPrint XT, the **-U** option specifies the name of the InfoPrint Manager status file for the InfoPrint Manager Configurable Transform Subsystem. The status file contains updates for certain attributes, and the transform end application exit can use the InfoPrint Manager **transform_update** command to make changes to the file. For more information, see the InfoPrint Manager documentation. Bibliography, p. 436 lists InfoPrint Manager publications.

-x "*conversion_parameters*"

Specifies all the conversion parameters that RICOH InfoPrint XT used when it converted the Xerox job to AFP. The set of conversion parameters can contain more than one occurrence of a specific parameter. In this case, RICOH InfoPrint XT uses the value for the last occurrence of the parameter.

-w *working_directory*

Specifies the name of the RICOH InfoPrint XT working directory. Typically, this is **/var/pdxt**.

Input and output data streams for the transform end application exit

RICOH InfoPrint XT passes data to the transform end application exit using streams, and the application exit passes data back toRICOH InfoPrint XT:

fd0 (STDIN)

RICOH InfoPrint XTdoes not pass any data to standard input for the application exit.

fd1 (STDOUT)

RICOH InfoPrint XT redirects the standard output from the application exit to **/dev/null**.

fd2 (STDERR)

RICOH InfoPrint XT captures anything that is written to standard error. RICOH InfoPrint XT writes the information from standard error to the **aioxlxte.lst** file in the working directory for the job.

Customizing the sample transform end application exit

RICOH InfoPrint XT provides a sample of the transform end application exit in the **/opt/infoprint/pdxt/samples** directory. The directory contains **aioxlxte**, which is the compiled sample application exit, and **aioxlxte.c**, which is the source. The sample application exit logs the transform completion time for jobs that you convert with InfoPrint Manager or RICOH ProcessDirector. It appends this information to the **/var/pdxt/transform.log** file; it does not overwrite previous entries. In addition, it mails the transform messages to a user-specified e-mail address. For information about how to use or modify the application exit, read the prolog of the **aioxlxte.c** source file.

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

Working with InfoPrint Manager-related application exits

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


Other application exits are available that you can use with RICOH InfoPrint XT. These exits are specific to combined InfoPrint Manager and RICOH InfoPrint XT installations that use Download for z/OS. You must have InfoPrint Manager installed to use these exits.

Setting up the download data set application exit

RICOH InfoPrint XT provides the **aioxldse** download data set application exit, which can modify data sets that are sent from Download for z/OS. Use the download data set application exit to:

- Do job processing that is different from the processing that the RICOH InfoPrint XT **pdxtdownload** program does. For example, you can redirect a subset of jobs to a different printer driver.
- Process z/OS options specific to the data set. For example, when you use the download data set application exit with the download job application exit, the data set application exit can change the CLASS of the job to the CLASS of the first data set in the job. See Setting up the download job application exit, p. 83.
- Modify the data set before the **pdxtdownload** program does its processing.

RICOH InfoPrint XT passes these options to the application exit:

-e *arguments*

Passes any application exit arguments that the **-e** download directive specified. For more information, see Using download directives, p. 174.

-p *portnumber*

Specifies the port number that the parent **mvsprsd** daemon used to receive the data set.

-q *value*

Specifies the value of the **-q** option that was used when the **mvsprsd** daemon process started.

-l *filename*

Specifies the name of the file that contains the data set that is being received.

-O *options*

Specifies the list of options that the **mvsprsd** daemon passes to the **pdxtdownload** program.

-P *pidnnnn*

Specifies the process identifier number of the parent **mvsprsd** daemon.

Input and output data streams for the download data set application exit

RICOH InfoPrint XT communicates with the application exit using streams:

fd0 (STDIN)

RICOH InfoPrint XT does not pass any data to the standard input of the application exit.

fd1 (STDOUT)

RICOH InfoPrint XT redirects standard output from the application exit to **/dev/null**.

fd2 (STDERR)

If the return code from the download data set application exit is a value other than **0** or **EREMOTE** (66), RICOH InfoPrint XT copies any standard error output from the application exit to the receiver log.

Return codes from the download data set application exit

Return codes from the download data set application exit are:

0

The processing done by the application exit was successful.

EREMOTE (66)

The application exit has completed processing for the data set and the **pdxtdownload** program skips to the next data set.

Note

In this case, the application exit must clean up the input file that contains the processed data set.

other

Any other return codes that are not in this list indicate that job processing failed.

Customizing the sample download data set application exit

RICOH InfoPrint XT provides a sample of the download data set application exit in the **/opt/infoprint/pdxt/samples** directory. This directory contains **aioxldse**, which is the compiled sample application exit, and **aioxldse.c**, which is the source. The sample download data stream application exit converts ASA/ANSI carriage controls to machine carriage controls. For information about how to use or modify the sample application exit, read the prolog of the **aioxldse.c** source file.

Setting up the download job application exit

RICOH InfoPrint XT provides the **aioxldje** download job application exit, which you can use for each job that is sent to InfoPrint Manager by the **pdxtdownload** program. Use the download job application exit to:

- Do job processing that is different from the processing that the RICOH InfoPrint XT **pdxtdownload** program does. For example, you can redirect a subset of jobs to a different printer driver.
- Modify or add InfoPrint Manager attributes for each job. For example, you can assign a specific InfoPrint Manager attribute based on the value of the CLASS or FORMS option passed from z/OS with the job.
- Convert the format of the data sets in the job before the **pdxtdownload** program submits the job to InfoPrint Manager.

RICOH InfoPrint XT passes these options to the application exit:

-e *arguments*

Passes any application exit arguments that the **-e** download directive specified. See Using download directives, p. 174.

-p *portnumber*

Specifies the port number that the parent **mvsprsd** daemon used to receive the data set.

-q *value*

Specifies the value of the **-q** option that was used when the **mvsprsd** daemon process started.

-O *options*

Specifies the list of options that pass from z/OS to the **mvsprsd** daemon.

-P *pidnnnn*

Specifies the process identifier number of the parent **mvsprsd** daemon.

-X *filename*

Specifies the name of the file that contains the attributes, which the **pdxtdownload** program uses when it submits the job to InfoPrint Manager.

-Z *filename*

Specifies the name of the file that contains the command options, which **pdxtdownload** uses when it submits the job to InfoPrint Manager.

Note

The **-X** and **-Z** command options correspond to the **-X** and **-Z** command options that **pdxtdownload** uses when it issues a **pdpr** command.

Output data streams for the download job application exit

RICOH InfoPrint XT communicates with the application exit using streams:

fd0 (STDIN)

RICOH InfoPrint XT does not pass any data to the standard input of the application exit.

fd1 (STDOUT)

RICOH InfoPrint XT redirects standard output from the download job application exit to **/dev/null**.

fd2 (STDERR)

If the return code from the download job application exit is a value other than **0** or **EREMOTE** (66), RICOH InfoPrint XT copies any standard error output from the application exit to the receiver log.

Return codes from the download job application exit

Return codes from the download job application exit are:

0

The processing done by the application exit was successful.

EREMOTE (66)

The application exit has completed processing for the job and the **pdxtdownload** program skips to the next job.

other

Any other return codes that are not in this list indicate that job processing failed.

Customizing the sample download job application exit

RICOH InfoPrint XT provides a sample of the download job application exit in the **/opt/infoprint/pdxt/samples** directory. This directory contains **aioxldje**, which is the compiled sample application exit, and **aioxldje.c**, which is the source. The sample download job application exit adds InfoPrint Manager attributes that are based on options from the **mvsprsd** daemon. For information about how to use or modify the application exit, read the prolog of the **aioxldje.c** source file.

Working with RICOH InfoPrint XT AFP structured fields

+ – – – – – – Programming Interface information – – – – – – – +

RICOH InfoPrint XT converts Xerox LCDS and metacode to AFP. The AFP that RICOH 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 RICOH 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.

RICOH 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. The next table shows the

format of the NOP Structured Field Identifier and Structured Field Data that RICOH InfoPrint XT inserts in the AFP data stream.

RICOH InfoPrint XT NOP structured field format

Offset	Length	Value	Description
0	1	X'5A'	Carriage control. RICOH InfoPrint XT always uses **X'5A'** for the carriage control.
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. RICOH InfoPrint XT always uses **X'00'**.
7	2	X'0000'	Reserved bytes. RICOH InfoPrint XT always uses **X'0000'**.
9	8	AIOX2AFP	This parameter specifies that RICOH InfoPrint XT generated the NOP structured field. RICOH InfoPrint XT generates the parameter value in EBCDIC: **X'C1C9D6E7F2C1C6D7'**.
17	2	X'nnnn'	The level of the RICOH InfoPrint XT Structured Field Data. The current level is **X'0000'**.
19-n	n	variable	This is the actual data for the structured field. Its format depends on the level. See RICOH InfoPrint XT AIOX2AFP NOP level X'0000' format, p. 85.

RICOH InfoPrint XT AIOX2AFP NOP level X'0000' format

The next table shows the format of the RICOH InfoPrint XT AIOX2AFP level X'0000' NOP, which consists of four parts.

RICOH InfoPrint XT NOP level X'0000' format

Offset	Length	Description
19	8	An EBCDIC keyword that describes the RICOH InfoPrint XT information. See RICOH InfoPrint XT AIOX2AFP NOP keywords, p. 86.
27	1	The flag byte.
28	2	The length of any associated data.
30-n	n	The data itself, if any.

RICOH InfoPrint XT AIOX2AFP NOP keywords

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

CTLHEADR (X'C3E3D3C8C5C1C4D9')

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

Bit 0:

Specifies whether the data stream can contain XRXOTEXT records. **1** indicates that the data stream can contain XRXOTEXT records. **0** indicates that the data stream does not contain XRXOTEXT records.

Bit 1:

Specifies whether the data stream can contain XRXCDJDE records. **1** indicates that the data stream can contain XRXCDJDE records. **0** indicates that the data stream does not contain XRXCDJDE 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
!..LÓÓ...AIOX2AFP..CTLHEADR...
501DEE000CCDEFCCD00CEDCCCCD800
A0D3EE000196721670033385149000
```

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

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

XRXOTEXT (X'E7D9E7D6E3C5E7E3')

RICOH InfoPrint XT generates one **XRXOTEXT** 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 **XRXOTEXT** record is the text of the OTEXT message.

AFPRLEVL (X'C1C6D7D9D3C5E5D3')

RICOH 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. RICOH 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 RICOH InfoPrint XT.

XRXHCINK (X'E7D9E7C8C3C9D5D2')

RICOH InfoPrint XT also converts Xerox images that contain highlight color controls to AFP page segments. RICOH InfoPrint XT generates an **XRXHCINK** 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 (ink catalog name, palette name and color name) for the Xerox sample that corresponds to the image object. RICOH InfoPrint XT does not use the flag byte at offset 27.

XRXCDJDE (X'E7D9E7C3C4D1C4C5')

When you specify **xcmt2nop=yes**, RICOH InfoPrint XT generates one XRXCDJDE 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 **XRXCDJDE** record is the comment text in EBCDIC. Each C DJDE text string that is processed by **xcmt2nop=yes** must be all ASCII or all EBCDIC alphanumeric or blank characters, and must not contain any special characters.

An **XRXCDJDE** record for comment text might contain:

```
----+----1----+----2----+----3----+----4----+----5----+
!..LÓÓ...AIOX2AFP..XRXCDJDE...Data copied from a C DJDE
503DEE000CCDEFCCD00EDECCDCC001C8A84899888489994 84C4CDCC
A063EE0001967216700797341450094131036795406964010304145
```

```
+ – – – – – – End of Programming Interface information – – – – – +
```

Working with content-sensitive medium map names

```
+ – – – – – – – – Programming Interface information – – – – – – -+
```

RICOH 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 RICOH 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. The next table describes the name format.

Format of content-sensitive medium map names

Byte	Bit	Description
1	Not applicable	RICOH InfoPrint XT always uses **X'C6'**.
2 through 5	Not applicable	RICOH 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 simplexed 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.

Note

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.

You might find content-sensitive medium maps names useful if you use an installation-specific application exit to make modifications to the AFP that RICOH InfoPrint XT generates.

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

Color customization

You can use the **pdxtcolor** command to customize the ink correlation table. See Using the pdxtcolor command to manage the InfoPrint XT ink correlation table, p. 122.

Using Raster Image Fonts

The Raster Image Fonts feature prevents some PDF viewers from displaying thin vertical lines between character shapes in inverted font text when RICOH InfoPrint XT converts AFP output to PDF.

When RICOH InfoPrint XT converts AFP output that contains inverted font text to PDF, some PDF viewers display thin vertical lines between the character shapes, at any zoom level.

Using raster image fonts, RICOH InfoPrint XT replaces the inverted font text with a raster image that it constructs from the raster character shapes, and places the image in the same location as the original text. The characters in the original font become blank rasters, so only the raster image is visible.

Because the original text remains in the PDF, you can still search for and select the replaced text.

To activate font replacement by raster image, use the -I parameter when you convert font resources. The -I parameter marks the selected font to be replaced by a raster image.

For more information about the -I parameter, see Using the pdxtloadres command to load Xerox resources, p. 99 to know more about the **pdxtloadres** command reference.

6. Copying and loading Xerox resources

- **Transferring Xerox printer resources to the Linux system**
- **Understanding the load process for Xerox resources**
- **Using the pdxtloadres command to load Xerox resources**
- **Scanning a job for required resources with the pdxtx2afp command**
- **Printing samples of overlays and page segments**
- **Correlating font, image, or logo resources manually**
- **Using the pdxtcluster command to create and modify cluster database resources**
- **Using the pdxtcolor command to manage the RICOH InfoPrint XT ink correlation table**
- **Deblocking and reblocking CMDs, FSLs, ISLs, and JSLs**
- **InfoPrint XT JSL (Job Source Library) Metrics Compiler**

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

```
man 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 Linux system

You must copy all the resources from each of your Xerox printers to a directory on the Linux system. RICOH 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 reside on the Xerox printer. You use the RICOH InfoPrint XT load process to create the AFP versions of printable Xerox resources and to gather reformatted information from the non-printable resources into metrics files.

When you convert Xerox jobs, RICOH InfoPrint XT must have access to the converted AFP resources and the reformatted information in the metrics files.

When you print converted Xerox jobs on RICOH printers, the printer driver software must have access to the converted AFP resources. AFP archiving solutions must also have access to the converted AFP resources.

When you load Xerox resources:

- RICOH InfoPrint XT creates AFP versions of Xerox font, image, logo, and form resources;
- RICOH InfoPrint XT saves internal information about most types of resources in metrics files. RICOH InfoPrint XT uses this information to reduce processing time when it converts a Xerox job that uses the resources.

RICOH InfoPrint XT resource directories for the load process

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

AFP resource directory

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

- **/var/pdxt/resources/common**. This is the common RICOH InfoPrint XT resource directory.
- **/var/pdxt/resources/***resgrp*. You can specify an RICOH InfoPrint XT directory for a specific group of resources. *resgrp* is a name you choose.
- */OtherDirectory*. You can also specify a separate, existing directory on the Linux system

Metrics directory

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

- **/var/pdxt/resources/common/metrics**
- **/var/pdxt/resources/***resgrp***/metrics**
- */OtherDirectory***/metrics**

Xerox resource directory

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

- **/var/pdxt/resources/common/xrxres**
- **/var/pdxt/resources/***resgrp***/xrxres**
- */OtherDirectory***/xrxres**

Resource samples directory

When you sample FRM / overlay resources, or create color samples, RICOH InfoPrint XT creates a directory to contain the generated sample jobs. The directory in which InfoPrint XT writes the resource samples depends on the load options. The resource samples directory is one of these:

- **/var/pdxt/resources/common/samples**
- **/var/pdxt/resources/***resgrp***/samples**
- */OtherDirectory***/samples**

Note

Use these directory definitions when RICOH 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

The next table contains information about the Xerox resources that you copy to the Linux system and the files that RICOH 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 six 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 RICOH InfoPrint XT generates from printable Xerox resources. RICOH 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 RICOH InfoPrint XT generates from the Xerox resources.

Xerox resource extensions, AFP prefixes, and metrics extensions

Xerox resource type and extension	Resulting RICOH InfoPrint XT AFP prefixes	Resulting RICOH InfoPrint XT metrics extensions
Cluster Library - **.lib**		**.alb**
Command - **.cmd** (See Note 2.)		**.acm**
Copy Modification Entry - **.cme**		**.ace**
Data - **.dat** (See Note 2.)		**.adt**
Font - **.fnt**	**C0**, **T1**, **X0** (See Note 1.)	.afn (single-byte) .adm (double-byte)
Form - **.frm**	**O1**	**.afr**
Forms Source Library - **.fsl** (See Note 2.)		**.afs**
Image - **.img**	**SI**	**.aim**
Ink Catalog - **.ict** (See Note 3.)		
Ink Descriptor - **.idr**		**.aid**
Ink Source Library - **.isl** (See Note 2.)		**.ais**
Job Descriptor Library - **.jdl**		**.ajd**
Job Source Library - **.jsl**		**.ajs**
Logo - **.lgo**	**SL**	**.alg**
Miscellaneous - **.msc**		**.ams**

Xerox resource type and extension	Resulting RICOH InfoPrint XT AFP prefixes	Resulting RICOH InfoPrint XT metrics extensions
(See Note 2.)		
Page Descriptor Entry - **.pde**		**.apd**
Patch - **.pch** (See Note 2.)		**.apc**
Stockset - **.stk**		**.ast**
Routing Text - **.tst**		**.ats**
Temporary - **.tmp**		**.atp**

Note

1. Not generated for double-byte character set fonts.
2. RICOH InfoPrint XT loads these resources, but it does not use them when you process jobs. RICOH service personnel may use the files for diagnostic purposes.
3. RICOH InfoPrint XT does not load ink catalogs, but stores related information in the ink correlation table.

6

Loading Xerox double-byte character set (DBCS) and EBCDIC fonts

The RICOH InfoPrint XT process that loads Xerox DBCS or EBCDIC fonts is different from the process that it uses for single-byte fonts. RICOH InfoPrint XT does not generate the AFP character sets, coded fonts, and code pages for the Xerox DBCS or EBCDIC 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* . You copy the AFP outline fonts to the appropriate AFP resource directory before you actually load the Xerox DBCS or EBCDIC fonts.

During the load process, RICOH InfoPrint XT maps each Xerox DBCS or EBCDIC font to an AFP coded font. It uses an AFP coded font name of **XZ***xxxxxx*. *xxxxxx* is the name of the corresponding Xerox DBCS or EBCDIC fonts. For example, if you load the **HST25P.FNT** Xerox DBCS or EBCDIC font, RICOH 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 or EBCDIC font name to the AFP coded font that you want to use. See Creating manual correlation entries for double-byte Xerox fonts, p. 114, and Creating manual correlation entries for Xerox EBCDIC fonts, p. 115.

To load Xerox DBCS or EBCDIC fonts:

1. Most Xerox DBCS and EBCDIC fonts contains sets of user-defined characters. Make sure that the AFP outline fonts that RICOH InfoPrint XT will use for the Xerox DBCS or EBCDIC fonts contain the corresponding sets of user-defined characters. RICOH offers a separately-priced RICOH InfoPrint XT feature to make modifications to the AFP outline fonts.
2. For RICOH InfoPrint XT installations that use InfoPrint Manager or RICOH ProcessDirector, the installation also requires modified global resource identifier (GRID) files. Make sure that the

modified GRID files are installed in the correct directory for the print management program. The separately-priced RICOH InfoPrint XT feature also includes services to modify the GRID files.

3. 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.
4. Copy the AFP DBCS or EBCDIC outline font files to the AFP resource directory for the resource group.
5. If the AFP coded font name does not match the **XZ***xxxxxx* naming convention, you must create a manual correlation table.
6. Use the **pdxtloadres** command to load the Xerox DBCS or EBCDIC fonts. See Using the pdxtloadres command to load Xerox resources, p. 99.

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, RICOH 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 RICOH InfoPrint XT during resource tasks

RICOH 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:

/var/pdxt/resources/common/pdxtloadres.log

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

- The time when the command started.
- The options and values that were specified with the **pdxtloadres** command.
- The resources that RICOH 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 **pdxtloadres** 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 **pdxtloadres.log** entries:

These are examples of **pdxtloadres.log** entries for FRM sampling:

When **testjob** resources required for FRM sampling are not loaded in the resource group you specified, **pdxtloadres** issues messages 5016-657 and 5016-658 in **pdxtloadres.lst**, and writes entries like these in **pdxtloadres.log**. The log entries display the **testjob** directory from which you should load the missing resources.

```
2013-01-16 08:36:05 MST pdxtloadres -f sample -g mygroup -Nxero*.frm
   l0112c.fnt         12 SAMP_RES /opt/infoprint/pdxt/testjob/l0112c.fnt
   l01bob.fnt         12 SAMP_RES /opt/infoprint/testjob/l01bob.fnt
   p0612c.fnt         12 SAMP_RES /opt/infoprint/testjob/p0612c.fnt
   p06bob.fnt         12 SAMP_RES /opt/infoprint/testjob/p06bob.fnt
   un111e.fnt         12 SAMP_RES /opt/infoprint/testjob/un111e.fnt
   pdxton.jdl         12 SAMP_RES /opt/infoprint/testjob/pdxton.jdl
2013-01-16 08:36:05 MST pdxtloadres (12)
```

When **pdxtloadres** cannot determine the page size for a sampled overlay, it issues message 5016-656 in **pdxtloadres.lst**, and writes an entry like this in **pdxtloadres.log**:

```
2013-01-16 09:05:17 MST pdxtloadres -f sample -g mygroup -Nbadpgd.frm
  O1BADPGD      12 SAMP_PGD /var/pdxt/resources/mygroup/O1BADPGD
2013-01-16 09:05:17 MST pdxtloadres (12)
```

If **pdxtx2afp** cannot successfully convert an FRM sample job, **pdxtloadres** writes an entry like this in **pdxtloadres.log**:

```
2013-01-16 09:05:17 MST pdxtloadres -f sample -g mygroup -Nfsfail.frm
 O1FSFAIL     12 SAMP_X2A /var/pdxt/resources/mygroup/O1FSFAIL
2013-01-16 09:05:17 MST pdxtloadres (12)
```

When various other failures occur during FRM sampling, **pdxtloadres** writes messages describing the failures in **pdxtloadres.lst**, and write entries like these in **pdxtloadres.log**:

```
2013-01-16 09:05:17 MST pdxtloadres -f sample -g mygroup -Nbadpgd.frm
O1OVLSTA    12 SAMP_OVS /var/pdxt/resources/mygroup/O1OVLSTA
O1OVLCAL    12 SAMP_OVC /var/pdxt/resources/mygroup/O1OVLCAL
O1OVLOPN    12 SAMP_OVO /var/pdxt/resources/mygroup/O1OVLOPN
O1OVLFRD    12 SAMP_OVR /var/pdxt/resources/mygroup/O1OVLFRD
O1XRIOPN    12 SAMP_XRO /var/pdxt/resources/mygroup/O1XRIOPN
O1XRIWRI    12 SAMP_XRW /var/pdxt/resources/mygroup/O1XRIWRI
2013-01-16 09:05:17 MST pdxtloadres (12)
```

When **pdxtloadres** successfully samples one or more AFP overlays that it created from Xerox FRM resources, it writes entries like these in **pdxtloadres.log**:

```
2013-01-16 09:23:52 MST pdxtloadres -f sample -g mygroup -Nxero*.frm
O1XERO11     0 SAMPLE  /var/pdxt/resources/mygroup/O1XERO11
O1XERO14     0 SAMPLE  /var/pdxt/resources/mygroup/O1XERO14
O1XERO17     0 SAMPLE  /var/pdxt/resources/mygroup/O1XERO17
2013-01-16 09:23:55 MST pdxtloadres (0)
```

Note

1. For convenience, RICOH InfoPrint XT provides a link to this file in the **/var/pdxt/resources/common/pdxtloadres** directory.
2. RICOH 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, **pdxtloadres** stops immediately. It does not try to process any resources.

/var/pdxt/resources/common/pdxtloadres.lst

This file contains the messages that RICOH InfoPrint XT wrote to standard error for the last time the **pdxtloadres** command ran. RICOH InfoPrint XT overwrites the information in this file each time the command runs.

Note

For convenience, RICOH InfoPrint XT provides a link to this file in the **/var/pdxt/resources/common/pdxtloadres** directory.

RICOH InfoPrint XT creates a retry file if it did not load all the resources that the **pdxtloadres** 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 **pdxtloadres.rty** file. You can correct the problems that RICOH InfoPrint XT reported and then try to load the resource or resources again. When you enter the **pdxtloadres** command, include the **-l** option with the command but do not enter a value for that option. This causes RICOH InfoPrint XT to use the information in the **pdxtloadres.rty** file to determine the resources to load.

Note

RICOH InfoPrint XT overwrites the information in the **pdxtloadres.rty** file with each time the **pdxtloadres** command runs.

Error information for resources that fail to load

RICOH 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 RICOH InfoPrint XT uses as the working directory. The working directory for the resource load process is one of these:

- **/var/pdxt/resources/common/pdxtloadres**
- **/var/pdxt/resources/***resgrp***/pdxtloadres**
- **/***OtherDirectory***/pdxtloadres**

This list describes the various files in the working directory:

resname.ext.**lst**

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

*xxx*_**corr.lst**

Contains information that RICOH 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 RICOH 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 RICOH InfoPrint XT did not generate a metrics file.

For example, if you issued

```
pdxtloadres -g myresgrp -n 'form01.frm'
```

and pdxtloadres generates an entry like this in pdxtloadres.log:

```
form01.frm          12 GEN_METR C:\mydir\xerox_res\form01.frm
```

you can find messages that explain the return code 12 in the GEN_METR step in **/var/pdxt/resources/myresgrp/pdxtloadres/frm_metr.lst**. The **frm_metr.lst** file might include messages such as these:

```
5019-320 E (XFN) The font processor cannot find font: FONT01 in the font correlation table.
5019-322 E (XFN) The font processor cannot find reformatted font: FONT01 in the reformatted
                 Xerox resource path.

5017-095 E (M@M) The form converter cannot find image: IMAGEX in the image correlation
                 table.
5017-097 E (M@M) The form converter cannot find image: IMAGEX in the reformatted Xerox
                 resource path.

5017-096 E (M@M) The form converter cannot find logo: LOGO54 in the logo correlation table.
5017-098 E (M@M) The form converter cannot find logo: LOGO54 in the reformatted Xerox
                 resource path.
```

These messages identify three resources that **form01.frm** invokes: **font01.fnt, imagex.img** and **logo54.lgo**. The resource utility could not create a metrics file for **form01.frm** because it could not find these resources in the resource group you specified. This resulted in return code 12 in the GEN_METR step for **form01.frm**.

To load the missing resources and try again to load form01.frm, you might issue:

```
pdxtloadres -g myresgrp -r -n 'font01.fnt' -n 'imagex.img -n 'logo54.lgo' -n
'form01.frm'
```

For more information, see Loading order for Xerox resources by resource type, p. 95.

*xxx*_**metr.xrl**

RICOH 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 RICOH InfoPrint XT processed successfully.

*resname.***a***xx.***failed**

Contains output that RICOH InfoPrint XT generates when a failure occurs while it tries to create a metrics file. *resname* is the actual name of the resource. **a** *xx* 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.

Note

1. RICOH InfoPrint XT deletes existing files in the **pdxtloadres** subdirectory and writes new information each time that you run the **pdxtloadres** command. It does not save any of the information for the previous time the command ran.
2. RICOH 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 **pdxtloadres** command in Using the pdxtloadres command to load Xerox resources, p. 99.

Determining whether you require resource groups

Within RICOH InfoPrint XT, a resource group contains all of the information for a set of resources. This includes the AFP resources, other information that it generates when you load resources, and copies of the original Xerox resources. RICOH InfoPrint XT provides a default resource group, named **common**, that you can use to load all of your Xerox resources.

For some installations, a single resource group may not be adequate. The use of custom RICOH InfoPrint XT resource groups allows you to load different versions of the same Xerox resource. You can then request a specific version when you submit a job for conversion and processing. You may find this useful if you provide printing services to different customers. For example, **dfault.jdl** is a common name for a starting JDL that defines one or more JDEs. Because of the characteristics of their jobs, the **dfault.jdl** for one customer may be very different from the **dfault.jdl** for another customer. You can also use resource groups if you had several Xerox printers, and each printer had a different set of resources.

If you choose to use multiple resource groups, you will use the **pdxtloadres** command to load each set of resources separately. You can then use the **-g** or **-r** parameter of the **pdxtx2afp** command to specify which set of resources to use for processing jobs. See the next section, **Using the pdxtloadres command to load Xerox resources**, for information on the **-g** and **-r** parameters.

When you submit a job, you can instruct RICOH InfoPrint XT to include the AFP resources inline in the AFP data stream. However, if the job uses a large number of resources, this method can impact performance. See Conversion parameters for converting Xerox Jobs, p. 199 for information on the **xinlr** parameter.

Using the pdxtloadres command to load Xerox resources

You use the RICOH InfoPrint XT **pdxtloadres** command to load all the Xerox resources on the Linux system and to create the AFP versions of printable resources. The command provides options that you can use to control how and where RICOH InfoPrint XT creates the converted resource files. You can also use the **pdxtloadres** command to delete resources, or to sample overlays that InfoPrint XT creates from Xerox FRMs. The Linux user name from which you run the **pdxtloadres** command must be a member of the Linux **printq** group.

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

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

pdxtloadres [-f load]
[-a ioca_rt | no_ioca_rt]
[-b spcprt | spcrmi]
[-c xerox | grayscale | [*lp* **]:[** *mp* **]:[** *hp* **]]**
[-d auto | all | none]
[-e listings | nolistings]
[[-g common | *resgrp* **] | -o** *OtherDirectory* **]**
[-H color | nocolor]
[-i | -r]
[-l *listfile* **| -n** *pattern* **]**
[-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 | trnw | char ]
                [ -S copies ]
pdxtloadres -f delete
                [ -e listings | nolistings ]
                [[ -g common | resgrp ] | -o OtherDirectory ]
                [-l listfile | -n pattern ]
 pdxtloadres -f sample
                [[ -g common | resgrp ]| -o OtherDirectory ]
                [ -L listfile | -N pattern ]
                [ -S copies ]
pdxtloadres -l
                [ none | all | f1:f2:fn ]
```

Note

These descriptions use the default values that RICOH InfoPrint XT supplies for the **pdxtloadres** options. You can change the default values using the **PDXTLOADRES_ARGS** environment variable. See Controlling the default arguments when you load resources (PDXTLOADRES_ARGS), p. 56.

6

[-a ioca_rt | no_ioca_rt]

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

ioca_rt

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

no_ioca_rt

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

Note

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.

[-b spcprt | spcrmi]

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

spcprt

RICOH InfoPrint XT interprets spacing characters in the font as Presentation Text Object Content Architecture text-string characters. This is the default.

spcrmi

RICOH InfoPrint XT interprets spacing characters in the font as Relative Move Inline structured fields.

Note

1. Restrictions apply when you use the **-b** option. See Xerox job restrictions, p. 17.
2. If you use this option to load specific fonts, reload any forms that use those fonts.
3. You can also change how RICOH InfoPrint XT interprets spacing characters in Xerox fonts when FILE DJDEs in a job specify the fonts. See the **xspcrmi** conversion parameter in Conversion parameters for converting Xerox Jobs, p. 199.

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

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

xerox

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

grayscale

RICOH 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* **]**

RICOH 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 RICOH InfoPrint XT uses for LIGHT shading.

mp

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

hp

The coverage percentage that RICOH 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, RICOH InfoPrint XT uses the default percentage for LIGHT, MEDIUM, or HEAVY. These are examples of values you can specify:

-c :8:16

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

-c 3

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

-c :11

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

-c ::14

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

-c 4:9:12

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

Note

Restrictions apply when you use the **-c** option. See Xerox job restrictions, p. 17.

[-d auto | all | none]

Controls how RICOH InfoPrint XT processes encrypted Xerox fonts. Valid values are:

auto

RICOH InfoPrint XT automatically determines whether each font requires decryption. This is the default.

all

RICOH InfoPrint XT runs its decryption utility for every font that it processes. You can use this option to force RICOH InfoPrint XT to decrypt individual fonts or groups of fonts when it cannot automatically detect that the fonts are encrypted.

none

RICOH InfoPrint XT does not run its decryption utility for any of the fonts that it processes. You can use this option to prevent RICOH InfoPrint XT from attempting to decrypt individual fonts or groups of fonts when it cannot automatically detect that the fonts are not encrypted.

[-e listings | nolistings]

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

listings

RICOH InfoPrint XT writes the listings to standard error.

nolistings

RICOH InfoPrint XT does not write the listings to standard error. This is the default.

[-f load | delete | sample]

Specifies whether RICOH InfoPrint XT loads or deletes Xerox resources, or samples AFP resources that it creates from Xerox resources. The default is that RICOH InfoPrint XT loads resources. Valid values are:

load

RICOH InfoPrint XT loads Xerox resources. This is the default.

delete

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

sample

RICOH InfoPrint XT samples AFP overlays that it creates from Xerox FRM resources. For each FRM you specify, **pdxtloadres** generates a small sample job and submits it to **pdxtx2afp** to create an AFP overlay sample.

Note

1. If the AFP resource directory contains DBCS and EBCDIC fonts, RICOH InfoPrint XT does not delete them when it deletes the Xerox DBCS and EBCDIC font resources.
2. Before you sample FRMs, you must load the FNT and JDL resources from **/opt/infoprint/pdxt/testjob** into the resource group that contains the FRMs and overlays you want to sample. If you have already loaded any of these resources in the resource group, you do not need to reload them.
3. If **pdxtx2afp** fails to convert a sample job, you can use the normal data stream conversion diagnostic methods to retain the job and view error messages in **pdxtx2afp.log**.

[-g common | *resgrp*]

Specifies a resource group name that RICOH InfoPrint XT uses to build subdirectories in the **/var/pdxt/resources** directory. RICOH 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

RICOH InfoPrint XT builds subdirectories in **/var/pdxt/resources/common**. This is the default.

resgrp

RICOH InfoPrint XT builds subdirectories in **/var/pdxt/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 **pdxtloadres** command uses the common resource group, which is **/var/pdxt/resources/common**.

[-H color | nocolor]

Specifies whether RICOH InfoPrint XT honors Xerox highlight color commands during resource conversion.

color

RICOH InfoPrint XT processes highlight color commands that it finds in Xerox resources.

nocolor

RICOH InfoPrint XT does not process highlight color commands. This is the default.

[-i]

For a specific Xerox resource that is already loaded, RICOH InfoPrint XT reconverts the resource. If the Xerox resource is a printable resource, RICOH InfoPrint XT also rebuilds the AFP file or files. RICOH 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, RICOH InfoPrint XT issues an error message when you specify the **-i** option.

[-I]

Specifies whether RICOH InfoPrint XT generates an image from the font character rasters and use it to replace the actual text. This feature should be used for inverted text fonts that show vertical lines between their individual rasters in different PDF viewers, after converting the XT AFP output to PDF.

none

RICOH InfoPrint XT does not generate any Raster Image fonts. This is the default.

all

RICOH InfoPrint XT generates Raster Image fonts for all fonts that it loads.

f1:f2:fn

RICOH InfoPrint XT generates Raster Image fonts for up to 33 fonts you specify. Separate the font names with colons.

[-r]

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

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

[-l *listfile* **]**

Specifies the resources that you want RICOH InfoPrint XT to load or delete. *listfile* is either a file on the Linux 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 :

-l -

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

-l fd:*n*

If you use the **fd:***n* format, RICOH InfoPrint XT reads the resource names from the file descriptor that you specify. *n* is the file descriptor number; for example **fd:7**.

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

Note

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 for z/OS naming conventions for Xerox resource files, p. 108.
3. If you are loading resources, you can specify the **-l** option without a value. RICOH InfoPrint XT tries to load resources using the retry file. See Information files generated by RICOH InfoPrint XT during resource tasks, p. 95.
4. If you use both the **-l** option and the **-i** option, do not include path information with the resource names. Only specify 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 for z/OS naming conventions.
6. If you specify the **-l** - option, you cannot specify the **-L** - option.

[-L *listfile* **]**

Specifies the FRM resources that you want InfoPrint XT to sample. listfile is either a file on the Linux 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 one of these formats:

-L -

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

Note

1. If you specify the **-L** option, you cannot specify the **-N** option.
2. If you specify the **-L** - option, you cannot specify the **-l** - option.
3. You cannot use wildcard characters in the entries in the list file.
4. You can specify Xerox resources with names that follow IBM Infoprint XT for z/OS naming conventions. See IBM Infoprint XT for z/OS naming conventions for Xerox resource files, p. 108.

[-m letter | *medium* **]**

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

Valid paper sizes are:

Values
-m folio
-m ledger
-m legal
-m letter
-m A3
-m A4
-m A4LT
-m B4

Note

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

none

RICOH InfoPrint XT does not generate AFP MICR fonts for any of the Xerox fonts that it loads. This is the default.

all

RICOH InfoPrint XT generates AFP MICR fonts for all the Xerox fonts that it loads.

xerox

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

xerox+*font1:font2:fontn*

RICOH 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*

RICOH 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

RICOH 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. RICOH 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.

[-n *pattern* **]**

Specifies the Xerox resources to load or delete. You can use Linux Linux 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 **fonts**:

```
pdxtloadres -n /fonts/*.fnt
```

- To load all resources in the current directory that begin with the letter **a**:

```
pdxtloadres -n ./a*
```

- To delete a specific JDL file in a specific group:

```
pdxtloadres -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 **pdxtloadres** command updates correlation tables, as needed.

Note

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 **pdxtloadres** command also recognizes IBM Infoprint XT for z/OS naming conventions for Xerox resource files. You can transfer Xerox resources from z/OS to the Linux system using a method such as File Transfer Protocol (FTP). The Xerox resource data sets have specific naming conventions.

IBM Infoprint XT for z/OS naming conventions for Xerox resource files

Xerox resource extensions	Corresponding z/OS name format
*.CLS (See Note.)	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$*
*.PCH	H$*
*.PDE	P$*
*.STK	Y$*
*.TMP	E$*
*.TST	T$*

Note

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

[-N *pattern* **]**

Specifies the Xerox FRM resources to sample. You can use Linux system 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 sample all Xerox FRM files in the resource group **forms**:

```
pdxtloadres -f sample -g forms -N '*.frm'
```

Note

1. If you specify the **-N** option, you cannot specify the **-L** option.
2. If you use both the **-N** option and the **-i** option, do not include path information in the value for the **-N** option.
3. When you sample resources, the **pdxtloadres** command also recognizes IBM Infoprint XT for z/OS naming conventions for Xerox resource files. The Xerox resource data sets have specific naming conventions. See IBM Infoprint XT for z/OS naming conventions for Xerox resource files, p. 108.

[-o *OtherDirectory* **]**

Specifies an existing directory in which you want RICOH InfoPrint XT to store AFP versions of Xerox printable resources. Use this option to store AFP resources in a directory other than **/var/pdxt/resources/common** or **/var/pdxt/resources/***resgrp*. RICOH InfoPrint XT also creates a **metrics** subdirectory, an **xrxres** subdirectory, and a **pdxtloadres** 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 **pdxtloadres** command uses the common resource group.

Note

If the directory that you specify does not exist or you do not have permission to write to the directory, RICOH InfoPrint XT issues an error message.

[-p 300_1 | 300_2]

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

300_1

Specifies the shading patterns used by Xerox 9700, 4*x*50, and 4*x*90 printers. This is the default.

300_2

Specifies the patterns used by Xerox 4*x*35 printers.

[-s none | word | trnw | char]

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

none

RICOH 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 a RICOH printer, you can make adjustments with the other values for this option.

word

RICOH InfoPrint XT makes spacing adjustments at word boundaries.

trnw

RICOH InfoPrint XT makes spacing adjustments at word boundaries, with minimal embedded blanks in Presentation Text Object Content Architecture text characters.

char

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

Note

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

[-S *nnnnn* **]**

Specifies the number of copies for each FRM sample you request. *nnnnn* is an integer from 1 through 32767. If you do not specify this parameter, RICOH InfoPrint XT produces 1 copy of each FRM sample.

6

Streams used by the pdxtloadres command

The **pdxtloadres** 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.

fd3

If you define this stream, the command writes one record for each resource that it successfully loads or deletes. The command always reports the resource name in lowercase characters, such as **p0612c.fnt**.

fd8

The default is that RICOH InfoPrint XT appends information about the resource load process and the resource delete process to the **pdxtloadres.log** file, which is in the directory for the resource group. If you define this stream, the command redirects the information to this file descriptor. RICOH InfoPrint XT automatically defines this stream when you process jobs that contain FILE DJDE commands that specify the **D** storage parameter. These are temporary resources; RICOH InfoPrint XT loads the resources and then deletes them when the job finishes. Frequently processing jobs that specify temporary resources through FILE DJDE commands can cause the size of the log file to

increase at a faster rate. RICOH InfoPrint XT does not delete the **pdxtloadres.log** file from the directory for the resource group.

Note

RICOH InfoPrint XT writes the output from file descriptor eight to the **pdxtloadres.log** file in the working directory for the resource load process. This file contains the names of the resources that RICOH InfoPrint XT loaded and deleted.

For information about the log file, see Information files generated by RICOH InfoPrint XT during resource tasks, p. 95, and Processing jobs that contain FILE DJDE commands, p. 158.

fd9

The command writes a file that contains problem determination information to file descriptor nine. It uses the Linux **pax** command to generate a compressed archive of the resource directory. The archive is in USTAR format.

Return codes from the pdxtloadres command

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

0

The command successfully loaded or deleted all the specified resources.

EINVAL (22)

Invalid argument

E2BIG (7)

Argument list too long.

ENOENT (2)

No such file or directory.

ENOMEM (12)

Cannot allocate memory.

EEXIST (17)

File exists.

ECONNABORTED (103)

Software caused connection abort.

ECONNRESET (104)

Connection reset by peer.

other

Any other return codes that are not in this list are return codes from C functions. See Return codes for Linux, p. 398.

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

Examples: pdxtloadres command

These examples show how you can use the **pdxtloadres** 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:
- To load all the resources specified in a list file in the current directory:

```
pdxtloadres -l ./resource.list
```

- To load all fonts in the current directory in the **payroll** resource group:

```
pdxtloadres -g payroll -n './*fnt'
```

Scanning a job for required resources with the pdxtx2afp command

When you initially set up RICOH 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, p. 154.

Printing samples of overlays and page segments

If your installation uses InfoPrint Manager with RICOH InfoPrint XT you can print copies of the AFP overlays that RICOH InfoPrint XT generates from Xerox forms, and you can print the AFP page segments that it generates from Xerox images and logos. 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=/var/pdxt/resources/common \
     /var/pdxt/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  /var/pdxt/resources/printrun/SIBROM1
```

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

```
pdpr -d ldest ./SIBROM
```

Correlating font, image, or logo resources manually

When you load Xerox fonts, images, and logos, RICOH InfoPrint XT automatically generates the corresponding AFP resources. RICOH InfoPrint XT also creates correlations that map the Xerox resources to their AFP counterparts. For most installations, the correlations that RICOH 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 AFP outline fonts for Xerox DBCS or EBCDIC fonts.
- Substituting AFP page segments for Xerox signature fonts. The size of some signature fonts can prevent RICOH 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 **pdxtloadres** 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 RICOH InfoPrint XT interprets the spacing characters. See the **-b** command option in Using the pdxtloadres command to load Xerox resources, p. 99.

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]
```

Where:

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 RICOH 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 CPage

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 have two methods by which you can 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.

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

Sample correlation entries for single-byte Xerox fonts

```
F CRC12P X2AFP X0P0612C
F RK141P X2AFP C0UN411E 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
```

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
```

Where:

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 RICOH 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 Xerox EBCDIC fonts

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

```
E XName A2ETable CFont
```

Where:

E

The entry is an EBCDIC 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 RICOH 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 EBCDIC font in the **tab.mft** table:

```
E EFMT6 X2AFP XZEFMT6
```

If you require AFP outline fonts for use with Xerox EBCDIC fonts, contact your marketing representative for more information. You can also use AFP 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* .

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 ]
```

Where:

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, and 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, and a negative value moves it up.

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

Sample correlation entries for Xerox images

```
I  GOALIE  S1LANCHE
I  KOALA1  S1SKYET  Y=4
I  X14BAR  S1IBI13B X=-2
I  AIR767  S1PIPERC X=3 Y=-2
```

Creating manual correlation entries for logos

To create a manual correlation table for logo resources, you 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.

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

Sample correlation entries for Xerox logos

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

Processing a manual correlation table

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

1. Log in to the RICOH InfoPrint XT system with an Linux user name that is a member of the **printq** group.
2. 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 RICOH InfoPrint XT AFP resource directory. For example, you specified an AFP resource in the manual correlation table that is in the **/usr/lpp/psf/reslib** directory. If you loaded the Xerox resources in the common resource group, the copy command is similar to this:

```
cp /usr/lpp/psf/reslib/X0423002 /var/pdxt/resources/common
```

3. If you made modifications for the common resources (located in **/var/pdxt/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
```

   RICOH 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 **fnt**, **img**, or **lgo**.

Using the pdxtcluster command to create and modify cluster database resources

You use the RICOH InfoPrint XT **pdxtcluster** command to process Xerox cluster databases. The **pdxtcluster** command loads and modifies Xerox cluster database resources for use with RICOH InfoPrint XT. The command provides options that you can use to control how and where RICOH InfoPrint XT creates the reformatted cluster database resource files.

You can change the contents of cluster database source files by using the **pdxtcluster –f add | remove | edit** commands. You can also manually edit cluster data base source files.

The **pdxtcluster** command automatically stores cluster database files in the correct locations when you specify the **–f create | delete | revert | copy | rename** functions. If you edit a *name*.**cls** cluster database source file manually, the **pdxtcluster –f cls2alb** command requires that you store the file in the **xrxres** directory of the resource group.

The user name that you use to enter the **pdxtcluster** command must be a member of the **printq** group.

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

```
+ – – – – – – – – Programming Interface information – – – – – – +
```

pdxtcluster [-f lib2cls]
[-n *pattern* **]**
[[-g common | *resgrp* **] | [-o** *OtherDirectory* **]**

pdxtcluster -f cls2alb
-n *pattern*
[[-g common | *resgrp* **] | [-o** *OtherDirectory* **]]**
[-r]

pdxtcluster -f create | copy | rename | revert | list
-n *pattern*
[[-g common | *resgrp* **] | [-o** *OtherDirectory* **]]**

pdxtcluster -f add | edit
-n *pattern*
-c *cluster_name=tray_numbers*
[[-g common | ***resgrp* **] | [-o *OtherDirectory* **]]**
[-a]

pdxtcluster -f remove
-n *pattern*
-c *cluster_name*
[[-g common | ***resgrp* **] | [-o *OtherDirectory* **]]**
[-a]

Note

RICOH InfoPrint XT uses the **.cls** extension to indicate cluster database source files and the **.alb** extension to indicate reformatted cluster database resources. All *name*.**cls** and *name*.**alb** files must have valid Xerox resource names.

-f

Indicates which function to perform. If specified, this parameter must precede all other **pdxtcluster** parameters.

lib2cls

pdxtcluster converts the **clustr.lib** to **clustr.cls** and places both files in the **xrxres** directory for the specified resource group. Either issue **pdxtcluster** from the directory in which **clustr.lib** resides, or specify the path to the **clustr.lib** in the **-n** parameter. This is the default function.

cls2alb

pdxtcluster converts the *name***.cls** file in the **xrxres** directory for the specified resource group to *name***.alb** in the **metrics** directory for the specified resource group.

create

pdxtcluster creates a new *name***.cls** resource file in the **xrxres** directory for the specified resource group. The *name***.cls** resource file is a copy of the **master.cls** file.

copy

pdxtcluster copies the *name***.cls** file in the specified resource group. This function is useful after specifying **-f lib2cls** to copy **clustr.cls** to a new name without affecting the **clustr.alb** file if it already exists.

rename

pdxtcluster renames the cluster resource in the specified resource group. This includes all *name***.cls**, *name***.alb** and *name***.cls.bak** files.

revert

pdxtcluster reverts to the previous version of *name***.cls** If there is no previous version, the command issues an error message.

add

pdxtcluster adds the cluster entries you specify with the **-c** parameter to *name***.cls** in the specified resource group. The command issues an error message if any of the clusters already exist. The command also creates a copy of the previous *name***.cls** file, *name***.cls.bak,** in the **xrxres** directory for the resource group.

edit

pdxtcluster edits specified clusters that already exist in *name***.cls**, or creates any cluster entries that do not exist. The command also creates a copy of the previous *name***.cls** file, *name***.cls.bak**, in the **xrxres** directory for the resource group.

remove

pdxtcluster removes the specified cluster entries from *name***.cls** in the specified resource group. The command also creates a copy of the previous *name***.cls** file, *name***.cls.bak**, in the **xrxres** directory for the resource group.

list

pdxtcluster writes a list of the current clusters in the *name***.cls** file for the specified resource group to standard output.

-g

Specifies the resource group name that RICOH InfoPrint XT uses to build subdirectories in the **/var/pdxt/resources** directory. RICOH InfoPrint XT uses these subdirectories to store and edit the cluster

database files. The name you specify must be alphanumeric. It can contain the letters "a" through "z" and "A" through "Z", and the numbers 0 through 9.

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

-o

Specifies an existing directory in which you want RICOH InfoPrint XT to store the cluster database resources. Use this option to store the cluster database resources in a directory other than **/var/pdxt/resources/common** or **/var/pdxt/resources**/*resgrp*. RICOH InfoPrint XT also creates a metrics subdirectory, and **xrxres** subdirectory, and a **pdxtcluster** 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 option, RICOH InfoPrint XT uses the directory for the common resource group.

-n

[clustr.lib]

Specifies the Xerox cluster database to process with the **-f lib2cls** function. The name of the database must be **clustr.lib**.

To process **clustr.lib** in the directory *xerox_res*:

```
pdxtcluster -f lib2cls -n '/xerox_res/clustr.lib'
```

To process **clustr.lib** in the current directory:

```
pdxtcluster -f lib2cls -n 'clustr.lib'
```

If you do not specify **-n**, RICOH InfoPrint XT processes **clustr.lib** in the current directory.

*name***.cls**

Specifies the Xerox cluster database source file to process. *name* must be a valid Xerox resource name.

old.**cls=***new*.**cls**

Specifies the old and new names for a Xerox cluster database source file and the associated reformatted cluster database file in the **-f copy** and **rename** functions. *old* and *new* must be valid Xerox resource names.

To rename **/xrxres/***old*.**cls** and **/metrics/***old*.**alb**:

```
pdxtcluster -f rename -n 'old.cls=new.cls'
```

RICOH InfoPrint XT issues an error message if *old*.**cls** does not exist.

-c

Specifies the cluster names and their tray numbers. You can specify more than one **-c** argument, up to a maximum of 50.

The cluster names you specify must contain from 1 through 6 alphanumeric characters. Although you can enter lowercase letters in cluster names, RICOH InfoPrint XT stores the cluster names using uppercase letters.

Tray numbers must be in the range of 1 through 8 and can be specified in any order. Separate each tray number with a colon (:). The lowest tray number is used for the AFP tray.

cluster_name=*tray_numbers*

Specifies a cluster and its associated tray numbers to add or edit in the cluster database.

To add cluster NEWCLS with tray numbers 3, 5, and 7:

```
pdxtcluster -f add -g resgrp -n 'myclst.cls' -c newcls=3:5:7
```

cluster_name

Specifies a cluster to remove from the cluster database.

If any of the clusters that you specify with the **-c** *cluster_name* parameter do not exist in the cluster database, RICOH InfoPrint XT issues an error message, but removes other specified clusters that do exist.

-r

If a *name*.**cls** is already loaded, the **-f cls2alb** function loads a new version of *name*.**alb**. If the conversion is successful, RICOH InfoPrint XT replaces the original copy of the *name*.**alb** in the **metrics** subdirectory for the resource group.

-a

After modifying *name*.**cls** with the **add**, **edit**, or **remove** function, **pdxtcluster** converts *name*.**cls** to *name*.**alb** and places the *name*.**alb** file in the **metrics** directory for the specified resource group. The command replaces the existing *name*.**alb** if it exists. This is the same as running a separate **pdxtcluster** command with **-f cls2alb**.

Streams used by the pdxtcluster command

fd0 (STDIN)

The command does not use this stream.

fd1 (STDOUT)

The **-f list** function writes to this stream.

fd2 (STDERR)

The command writes messages to this stream.

Return codes from the pdxtcluster command

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

0

The command was successful.

EINVAL (22)

There is an error with one of the command options.

E2BIG (7)

The command contains too many arguments or command options.

ENOATTR (61)

The command contains a command option without a value or a required command option is missing.

ENOENT (2)

The file or pattern you specified with the **-n** command option did not contain any valid file names.

EEXIST (17)

The resource is already loaded, but you did not specify the **-r** command option.

ENOMEM (12)

There is not enough memory available for the command.

other

The error is from a C function, such as *open()* or *read()*.

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


Examples: pdxtcluster command

- Convert **clustr.lib** in the **/xerox_res** directory to a **clustr.cls** source file in the common resource group:

```
pdxtcluster -n "/xerox_res/clustr.lib"
```

Note

-g common and **-f lib2cls** are the defaults.

- Convert a **clustr.cls** file in the resource group common to a **clustr.alb** reformatted resource file:

```
pdxtcluster -f cls2alb -n "clustr.cls"
```

- Add two new clusters to **clustr.cls** in the **common** resource group. The cluster **CL2** is mapped to tray 2 and **CL3** is mapped to tray 3:

```
pdxtcluster -f add -n "clustr.cls" -c cl2=2 -c cl3=3
```

- Remove two clusters, **CL2** and **CL3**, from **clustr.cls**:

```
pdxtcluster -f remove -n "clustr.cls" -c cl2 -c cl3
```

- List the clusters in **clustr.cls** in the **common** resource group:

```
pdxtcluster -f list -n "clustr.cls"
```

Using the pdxtcolor command to manage the RICOH InfoPrint XT ink correlation table

You use the RICOH InfoPrint XT **pdxtcolor** command to manage the RICOH InfoPrint XT ink correlation table. This table associates Xerox highlight color ink names with CIELAB values that RICOH InfoPrint XT generates in the AFP output that it produces. The command provides options that you can use to control how and where RICOH InfoPrint XT creates the ink correlation table.

The **pdxtcolor** command also provides functions to help you customize your Xerox highlight color environment and begin migrating to full color output. With these functions, you can:

- Create new colors in addition to the solid colors and shades that Xerox supplies.
- Edit individual entries in the ink correlation table.
- Control how RICOH InfoPrint XT selects an associated solid color or a shaded ink color when it processes text and IMGs.

Note

In order to use color customization that the **pdxtcolor** command provides, the applications that generate your LCDS and metacode data streams must allow you to specify the names of any custom colors that you add to the ink correlation table.

The Linux user name from which you run the **pdxtcolor** command, must be a member of the Linux **printq** group.

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

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

pdxtcolor [-f create]
[[-g common | *resgrp*] | **-o** *OtherDirectory*]
[-d no | yes]
[-m letter | A4]
[-s none | all | solid_colors | collection_colors |
solid_color_name **]**

pdxtcolor [-f refresh]
[[-g common | *resgrp* **]** | **-o** *OtherDirectory*]
[-d no | yes]
[-m letter | A4]
[-s none| all | solid_colors | collection_colors |
solid_color_name **]**

pdxtcolor [-f load]
[[-g common | *resgrp*] | **-o** *OtherDirectory*]
[-d no | yes]
[[-k *solid_color_name* **: srgb:***max_value***:***red_value***:***green_value***:***blue_value***]**
[-k *solid_color_name* **: lab:***L*_value***:***a*_value***:***b*_value***]**
[-k *solid_color_name* **: gs:***gs_value***]]**
[-m letter | A4]
[-p yes | no]
[-s none | all | solid_colors | collection_colors |
solid_color_name]
[-t auto | solid | black | shade]

pdxtcolor [-f edit]
[[-g common | *resgrp*] | **-o** *OtherDirectory*]
[-d no | yes]
[[-e *catalog***:***palette***:***ink***:***interp_cntl***:srgb:***max_value***:***red_value***:***green_value***:***blue_value* **|**
[-e *catalog***:***palette***:***ink***:***interp_cntl***:lab:***L*_value***:***a*_value***:***b*_value* **|**
[-e *catalog***:***palette***:***ink***:***interp_cntl***:gs:***gs_value***]]**
[-m letter | A4]
[-p yes | no]

[-s none | all | solid_colors | collection_colors |
solid_color_name **]**

pdxtcolor [-f color_select]
[[-g common | *resgrp*] **| -o** *OtherDirectory*]
[-d no | yes]
[-m letter | A4]
[-n *solid_color_name*]
[-s none | all | solid_colors | collection_colors |
solid_color_name **]**
[-t auto | solid | black | shade]

pdxtcolor [-f color_spectrum]
[[-g common | *resgrp* **] | -o** *OtherDirectory*]
[-d no | yes]
[[-l L:*minimum*:*maximum*:*values_count*]
[-l a:*minimum*:*maximum*:*values_count*]
[-l b:*minimum*:*maximum*:*values_count*]]
[-m letter | A4]
[-p yes | no]
[-s none | all | solid_colors | collection_colors |
solid_color_name]
[-t auto | solid | black | shade]

pdxtcolor [-f color_collections]
[[-g common | *resgrp*] **| -o** *OtherDirectory*]
[-c collection_colors | *collection_name* **|** *color_name*]
[-d no | yes]
[-m letter | A4]
[-p no | yes]
[-s none | all | solid_colors | collection_colors |
solid_color_name **]**
[-t auto | solid | black | shade]

pdxtcolor [-f rename]
[[-g common | *resgrp*] **| -o** *OtherDirectory* **]**
[-d no | yes]
[-m letter | A4]
[-r *old_name*:*new_name*]
[-s none | all | solid_colors | collection_colors |
solid_color_name **]**
[-t auto | solid | black | shade]

pdxtcolor [-f copy]
[[-g common | *resgrp*] **| -o** *OtherDirectory* **]**
[-d no | yes]
[-m letter | A4]
[-r *old_name*:*new_name* **]**
[-s none | all | solid_colors | collection_colors |
solid_color_name **]**
[-t auto | solid | black | shade]

pdxtcolor [-f delete]
[[-g common | *resgrp* **] | -o** *OtherDirectory*]
[-u *solid_color_name*: **all | solid_color | shades | samples]**

pdxtcolor [-f sample]
[[-g common | *resgrp*] | -o *OtherDirectory*]
[-d no | yes]
[-m letter | A4]
[-s none | all | solid_colors | collection_colors |
solid_color_name **]**

create

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak**.

It then copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group, completely replacing the existing table with a copy of the standard table.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f sample** function for details.

refresh

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak**

It then integrates the standard ink correlation table into the existing table, refreshing the CIELAB values for the standard solid colors and shades. Any custom colors you have created remain unchanged.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f** sample function for details.

load

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak**.

RICOH InfoPrint XT then creates new ink correlation table entries for the solid color names that you specify. If you specify **-p yes** with **-k** *solid_color_name***:srgb** or **-k** *solid_color_name***:lab**, RICOH InfoPrint XT also creates a full palette of color + black + white shaded colors for each of the solid colors you specify. Each of these palettes contains CIELAB values for the solid color and all the shaded colors associated with the solid color, based on the alphanumeric **XEROX1** ink catalog naming convention: **H***n* (color + white), **K***n* (black + white) or **H***n***K***n* (color + black + white).

If you specify **-p yes** with **-k** *solid_color_name***:gs**, RICOH InfoPrint XT also creates a palette of 15 grayscale shades using the **K***n* names from the **XEROX1 MONO** palette. In this palette, **K100** has the grayscale value that you specifiy for *solid_color_name*.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f** sample function for details.

You can also manually customize existing entries in the ink correlation table using information you supply in a **tab.mkt** ink correlation table source file.

edit

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak**.

RICOH InfoPrint XT then changes the entry that you specify using the values you supply with the **–e** parameter. If you change one of the solid colors and specify **-p yes** with **-e srgb** or **-e lab**, RICOH InfoPrint XT also creates a full palette of color + black + white shaded colors for each of the solid colors you change. Each of these palettes contains CIELAB values for the solid color and all the shaded colors associated with the solid color, based on the alphanumeric **XEROX1** ink catalog naming convention: **H***n* (color + white), **K***n* (black + white), or **H***n***K***n* (color + black + white).

If you specify **-p yes** with **-e gs:***gs_value*, RICOH InfoPrint XT also creates a palette of 15 grayscale shades using the **K***n* names from the **XEROX1 MONO** palette. In this palette, **K100** has the grayscale value that you specifiy for *solid_color_name*.

If the entry does not exist, RICOH InfoPrint XT issues an error message.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f sample** function for details.

You can also manually customize existing entries in the ink correlation table using information you supply in a **tab.mkt** ink correlation table source file.

color_select

If you specify a shaded ink such as **XEROX1.BLUE.H54K4** for text in an FRM or for the color portion of an IMG, the Xerox LPS automatically selects the associated solid color or black when it prints the text or IMG, based on whether the shaded ink contains more solid color or black.

You use the **color_select** function and the **–t** parameter to control how RICOH InfoPrint XT selects output colors associated with a specified solid color when it processes shaded inks specified for IMGs, or text in FRMs or input data streams. RICOH InfoPrint XT emulates Xerox color selection (with **–t auto**), selects the associated solid color for all shaded inks (with **–t solid**), selects black for all shaded inks (with **–t black**) or selects the specified shaded ink (with **–t shade**).

Use the **–n** parameter to specify a solid color name. The **color_select** function affects the **SOLID.SIMPLE** *.solid_color_name* entry and all of the associated shaded ink entries (**XEROX1***.solid_color_name.***H***nn***K***nn*) in the ink correlation table. The **color_select** function does not affect ink correlation table entries for the **DFAULT** ink catalog.

For example, if you specify:

```
pdxtcolor -f color_select -g resgrp -n green -t shade
```

and then specify any of the **XEROX1.GREEN.H***nn***K***nn* shaded inks for printing text or IMGs, InfoPrint XT selects the shaded ink that you specify, rather than solid **GREEN** or black.

If you specify:

```
pdxtcolor -f color_select -g resgrp -n magenta -t solid
```

and then specify any of the **XEROX1.MAGENTA.H***nn***K***nn* shaded inks for printing text or IMGs, InfoPrint XT selects solid **MAGENTA**, rather than the shaded ink or black.

The **color_select** function does not affect how RICOH InfoPrint XT processes highlight color shading in FRMs. RICOH InfoPrint XT uses the specified shaded ink when it processes highlight color shading generated by the FILL parameter of the BOX FSL command.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f sample** function for details.

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak**.

color_spectrum

RICOH InfoPrint XT automatically generates a large assortment of solid colors and adds them to the ink correlation table in **SOLID.SIMPLE.COLOR***qLLaabb* entries.

RICOH InfoPrint XT generates a unique name for each color using the format **COLOR***qLLaabb*, where

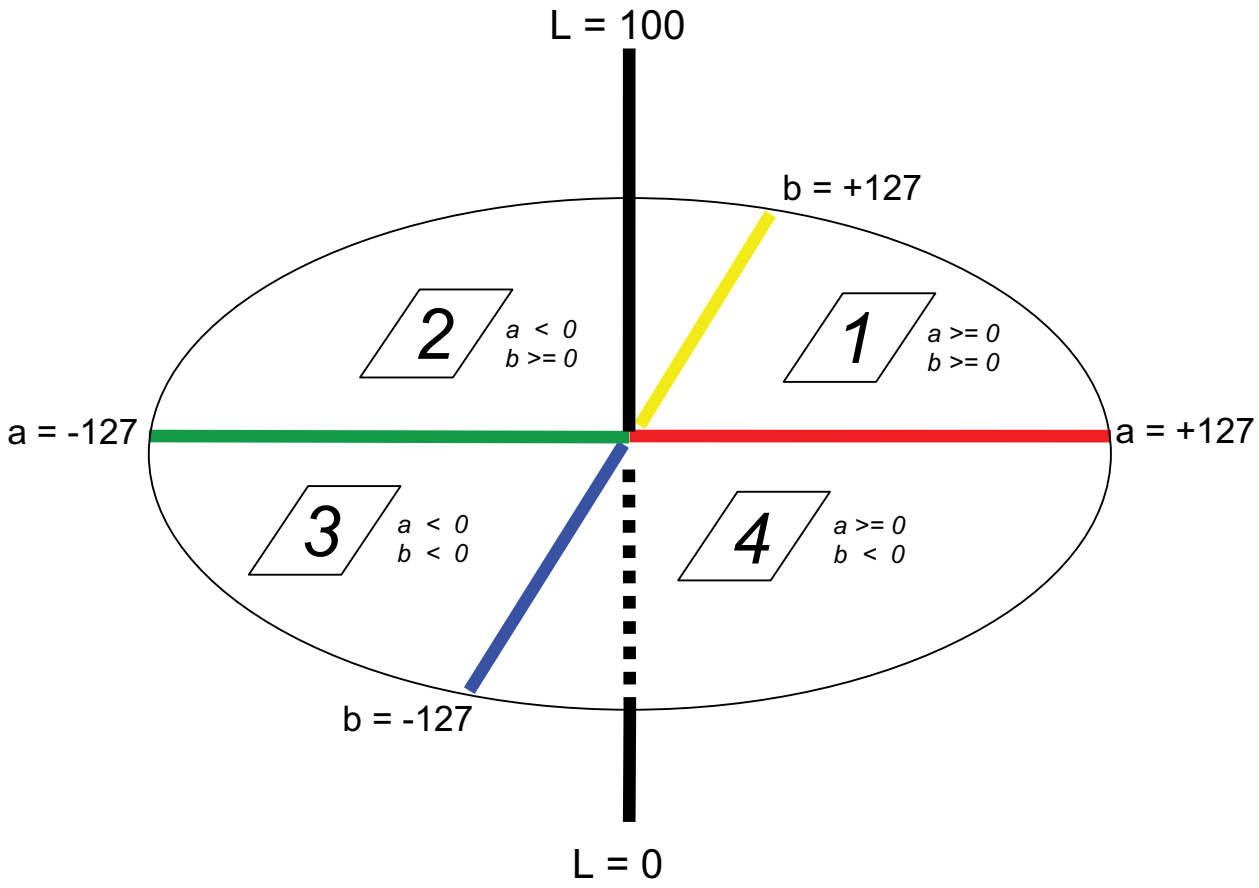
q is a quadrant of the CIELAB color space, as defined by the sign of the **a*** and **b*** values. The next figure illustrates how RICOH InfoPrint XT uses quadrants of the CIELAB color space to derive color names for the **–f color_spectrum** function.

LL is the L* value in hexadecimal.

aa is the absolute value of the a* value in hexadecimal.

bb is the absolute value of the b* value in hexadecimal.

CIELAB color space quadrants for the –f color_spectrum function



CIELAB color space quadrant	a value	b value	Color range
1	0 or positive	0 or positive	Red to Yellow
2	negative	0 or positive	Yellow to Green
3	negative	negative	Green to Blue
4	0 or positive	negative	Blue to Red

If you specify **-p yes**, RICOH InfoPrint XT also creates a full palette of color + black + white shaded colors for each of the **COLOR***qLLaabb* solid colors that it generates, and stores them in the ink correlation table as **XEROX1.COLOR***qLLaabb*.**H***nn***K***nn*.

You can use this function to provide a wide spectrum of new solid colors and shades to assist you with color customization of your Xerox applications and resources, and with migration toward full color output.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f sample** function for details.

Before the pdxtcolor command performs the **color_spectrum** function, Infoprint XT does these tasks:

- If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

- If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak**.

color_collections

RICOH InfoPrint XT creates sets of multiple **SOLID.SIMPLE.***collection_color_name* predefined entries in the ink correlation table.

Use the **–c** parameter to specify the predefined colors to be created in the ink correlation table.

For example, if you specify:

```
pdxtcolor -f color_collections -g common -c collection_colors
```

RICOH InfoPrint XT adds all the collections of predefined colors to the ink correlation table.

If you specify:

```
pdxtcolor -f color_collections -g common -c materials
```

RICOH InfoPrint XT adds only the *Materials* collection from the entire spectrum of predefined colors to the ink correlation table. The *Materials* collection contains these predefined colors: COBALT, STEEL, SILVER, CELADON, GOLD, COPPER, OAK, MAHOGANY, RUST, CORAL, BRICK and ROSEWOOD. After command execution, the ink correlation table contains entries like **SOLID.SIMPLE.COBALT** and **SOLID.SIMPLE.STEEL**.

If you specify:

```
pdxtcolor -f color_collections -g common -c steel
```

RICOH InfoPrint XT adds only the STEEL color from *Materials* collection to ink correlation table. After command execution, the ink correlation table contains this new added entry: **SOLID.SIMPLE.STEEL**.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f sample** function for details.

Note

1. The **color_collections** function does not affect the ink correlation table entries for the **DFAULT** ink catalog.
2. The collection of colors contains 75 predefined colors organized into various groups. For the complete list of predefined colors and collections, see InfoPrint XT Custom Color Collections, p. 403.

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak** before it performs the **color_collections** function.

rename

RICOH InfoPrint XT renames a **SOLID.SIMPLE.***solid_color_name* in the ink correlation table, and also renames the palette names in the **XEROX1.***solid_color_name*.**H***nn***K***nn* entries that are associated with the solid color you specify.

Use the **–r** parameter to specify the old and new solid color names. RICOH InfoPrint XT stores the new name in uppercase in the ink correlation table.

For example, if you specify:

```
pdxtcolor -f rename -g common -r color21e1a02:forest
```

RICOH InfoPrint XT changes **SOLID.SIMPLE.COLOR21E1A02** to **SOLID.SIMPLE.FOREST** and changes all occurrences of **XEROX1.COLOR21E1A02.H***nn***K***nn* to **XEROX1.FOREST.H***nn***K***nn*.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f sample** function for details.

Note

If you specify any of the standard Xerox solid color names (**BLUE**, **BROWN**, **CARDINAL**, **CYAN**, **GRAY**, **GREEN**, **MAGENTA**, **RED**, **ROYAL**, **RUBY**, **VIOLET** or **YELLOW**) as the old name in the **–n** parameter, RICOH InfoPrint XT issues an error message and does not rename the solid color. The rename function does not affect ink correlation table entries for the **DFAULT** ink catalog.

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak**.

6

copy

RICOH InfoPrint XT makes a copy of **SOLID.SIMPLE.***old_solid_color_name* in the ink correlation table and names it **SOLID.SIMPLE.***new_solid_color_name*. InfoPrint XT also renames the palette names in the **XEROX1.***new_solid_color_name***.H***nn***K***nn* entries that are associated with the solid color you specify. Use the **–r** parameter to specify the old and new solid color names. RICOH InfoPrint XT stores the new name in uppercase in the ink correlation table.

For example, if you specify:

```
pdxtcolor -f copy -g common -r color21e1a02:forest
```

RICOH InfoPrint XT copies **SOLID.SIMPLE.COLOR21E1A02** to **SOLID.SIMPLE.FOREST** and copies all occurrences of **XEROX1.COLOR21E1A02.H***nn***K***nn* to **XEROX1.FOREST.H***nn***K***nn*. **SOLID.SIMPLE.COLOR21E1A02** and its shaded palette colors, **XEROX1.COLOR21E1A02.H***nn***K***nn*, remain unchanged in the ink correlation table.

If you specify the **–s** parameter, RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. See the **–f sample** function for details.

Note

1. The **copy** function does not affect ink correlation table entries for the **DFAULT** ink catalog.
2. If you specify any of the standard Xerox solid color names (**BLUE, BROWN, CARDINAL, CYAN, GRAY, GREEN, GRAY, MAGENTA, RED, ROYAL, RUBY, VIOLET** or **YELLOW**) as the new solid color name in the **–r** parameter, RICOH InfoPrint XT issues an error message and does not overwrite the standard solid color, associated shaded colors or AFP sample files.

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies **/opt/infoprint/pdxt/resources/tab.skt** and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

If the ink correlation table already exists in the resource group or output directory that you specify, RICOH InfoPrint XT makes backup copies of the table files by renaming them to **tab.skt.bak** and **tab.akt.bak** before it performs the **copy** function.

delete

RICOH InfoPrint XT deletes entries in the ink correlation table and associated AFP sample files.

Use the **–u** parameter to specify the entries to delete.

Note

If you specify any of the standard Xerox solid color names (**BLUE, BROWN, CARDINAL, CYAN, GRAY, GREEN, MAGENTA, RED, ROYAL, RUBY, VIOLET** or **YELLOW**) as the solid color name in the **–u** parameter, RICOH InfoPrint XT issues an error message and does not delete the solid color, associated shaded colors or AFP sample files.

RICOH InfoPrint XT makes backup copies of the ink correlation table files by renaming them to **tab.skt.bak** and **tab.akt.bak** before it performs the delete function.

sample

RICOH InfoPrint XT creates color sample AFP jobs for the solid color names that you specify. Each sample job contains samples of the solid color and all the color + black + white shades that use the solid color, based on the alphanumeric **XEROX1** ink catalog naming convention: **H***n* (color + white), **K***n* (black + white), or **H***n***K***n* (color + black + white).

InfoPrint XT stores the color sample AFP job files as *solid_color_name*.**sample.afp** (with **-s all** or **–s** *solid_color_name*) or **solid_colors.sample.afp** (with **-s solid_colors**) in the resource samples directory. RICOH InfoPrint XT embeds all AFP resources inline in the color sample jobs that it generates.

If the ink correlation table does not already exist in the resource group or output directory that you specify, RICOH InfoPrint XT copies and **tab.akt** to **tab.skt** and **tab.akt** in the specified resource group.

Command options:

[-c collection_colors | *collection_name* | *color_name* **]**

Specifies the predefined colors to be added in the ink correlation table.

Note

The collection of colors contains 75 predefined colors organized into various groups. For the complete list of predefined colors and collections, see InfoPrint XT Custom Color Collections, p. 403.

collection_colors

RICOH InfoPrint XT adds the entire spectrum of predefined colors in the ink correlation table. This is the default.

collection_name

RICOH InfoPrint XT adds the ***collection_name***, containing several colors, in the ink correlation table.

color_name

RICOH InfoPrint XT adds the ***color_name*** in the ink correlation table.

[-d no | yes]

Indicates whether RICOH InfoPrint XT should generate detailed information about CIELAB and grayscale values when you specify the **-s** parameter to create color sample AFP jobs.

no

RICOH InfoPrint XT does not generate detailed information about CIELAB or grayscale values in pdxtcolor AFP sample jobs.

yes

RICOH InfoPrint XT generates detailed information about CIELAB and grayscale values in pdxtcolor AFP sample jobs.

[[-e *catalog*:*palette*:*ink*:*interp_cntl*:**srgb:***max_value*:*red_value*:*green_value*:*blue_value***]**

[-e *catalog*:*palette*:*ink*:*interp_cntl*:**lab:***L*_value*:*a*_value*:*b*_value***]**

[-e *catalog*:*palette*:*ink*:*interp_cntl*:**gs:***gs_value* **]]**

For the **–f edit** function, specifies a fully qualified ink name (catalog, palette and ink) and the values that you want to change in the ink correlation table entry for the ink name. Any values that you specify will be changed in the entry. Any values that you omit will remain unchanged in the entry. If palette or ink contains embedded blanks, you must enclose *catalog:palette:ink* in double quotes.

catalog

The name of the Xerox ink catalog: **DFAULT**, **XEROX1** or **SOLID**. You must specify **SOLID** for solid color entries. RICOH InfoPrint XT stores the name in uppercase in the ink correlation table.

palette

The name of the Xerox palette. You must specify **SIMPLE** for solid color entries. If you specify **DFAULT** as the catalog name, you must specify **BLUE**, **GREEN**, **MONO** or **RED** as the palette name. If you specify **XEROX1** as the catalog name, you must specify one of the standard Xerox solid color names (**BLUE**, **BROWN**, **CARDINAL**, **CYAN**, **GRAY**, **GREEN**, **MAGENTA**, **RED**, **ROYAL**, **RUBY**, **VIOLET** or **YELLOW**), or the name of a solid color you have defined, as the palette name. RICOH InfoPrint XT stores the name in uppercase in the ink correlation table.

ink

The name of the Xerox ink. RICOH InfoPrint XT stores the name in uppercase in the ink correlation table.

interp_cntl

When the specified ink is used for text or IMGs, controls whether RICOH InfoPrint XT emits the associated solid color (**h**), black (**k**) or the specified shaded ink or grayscale (**s**) in the output AFP.

srbg

Indicates the sRGB color space. *max_value* indicates the range of values for *red_value*, *green_value* and *blue_value*. Valid values are 255 (integers, 0 – 255), FF (hexadecimal, 00 – FF) or 100 (integers, 0 – 100).

If you specify **srgb**, you must also specify *max_value*, *red_value*, *green_value* and *blue_value*.

RICOH InfoPrint XT converts the sRGB values that you specify to CIELAB values.

lab

Indicates the CIELAB color space. The value range for L*_value is **0.00** through **100.00**. The value range for *a*_value* and *b*_value* is **-128.00** to **127.00**.

If you specify **lab**, you must also specify *L*_value*, *a*_value* and *b*_value*.

gs

Indicates grayscale *gs_value* is a grayscale coverage percentage.

If you specify **gs**, you must also specify *gs_value*.

You must specify grayscale values for the **K*** ink names in the **DFAULT.MONO** and **XEROX1.MONO** palettes. If you specify CIELAB values for these inks, RICOH InfoPrint XT issues an error message.

You must specify catalog, palette and ink values with the **-e** parameter.

You can change both the interpretation control and the color values for an ink correlation table entry by specifying an interpretation control, a color space and the associated color values.

If you only want to change the interpretation control, do not specify a color space type or color values. You can also omit the interpretation control and only change the color values.

If the ink name does not exist in the ink correlation table, RICOH InfoPrint XT issues an error message.

[-g common | *resgrp*]

Specifies a resource group name that RICOH InfoPrint XTuses to build the subdirectories in the **/opt/infoprint/pdxt/resources** directory. RICOH InfoPrint XT uses the subdirectories to store the ink correlation table. Valid values are:

common

RICOH InfoPrint XT stores the ink correlation table in **/opt/infoprint/pdxt/resources/common/metrics** . This is the default.

resgrp

RICOH InfoPrint XT stores the ink correlation table in . *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 **pdxtcolor** command stores the ink correlation table in the common resource group, which is .

[-o *OtherDirectory* **]**

Specifies an existing directory in which you want RICOH InfoPrint XT to store the ink correlation table. Use this option to store the ink correlation table in a directory other than or .

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

Note

If the directory that you specify does not exist or you do not have permission to write to the directory, RICOH InfoPrint XT issues an error message.

[[-k *solid_color_name*:**srgb**:*max_value*:*red_value*:*green_value*:*blue_value* **]**

[-k *solid_color_name***:lab:***L***_value***:***a***_value***:***b***_value* **]**

[-k *solid_color_name***:gs:***gs_value* **]]**

For the **–f load** function, specifies a new color you want to add to the ink correlation table, or an existing color you want to modify in the ink correlation table.

The Xerox solid colors represented in the RICOH InfoPrint XT standard ink correlation table are **BLUE**, **BROWN**, **CARDINAL**, **CYAN**, **GRAY**, **GREEN**, **MAGENTA**, **RED**, **ROYAL**, **RUBY**, **VIOLET** and **YELLOW**. If you specify any of these names in the **–k** parameter, RICOH InfoPrint XT alters the entries associated with the specified name. Names of new colors must be different from these standard Xerox color names, for example, **MIDNIGHT**, **TURQUOISE**, **OLIVE** or **ORANGE**.

solid_color_name

Is a value from 1 to 32 characters. The name must be alphanumeric. It cannot contain any special characters. If *solid_color_name* contains embedded blanks, you must enclose it in double quotes. RICOH InfoPrint XT stores the name in uppercase in the ink correlation table.

srbg

Indicates the sRGB color space. *max_value* indicates the range of values for *red_value*, *green_value* and *blue_value*. Valid values are 255 (integers, 0 – 255), FF (hexadecimal, 00 – FF) or 100 (integers, 0 – 100).

RICOH InfoPrint XT converts the sRGB values that you specify to CIELAB values.

lab

Indicates the CIELAB color space. The value range for *L*_value* is **0.00** through **100.00**. The value range for *a*_value* and *b*_value* is **-128.00** to **127.00**.

gs

Indicates grayscale; *gs_value* is a grayscale coverage percentage.

RICOH InfoPrint XT adds the color and its CIELAB or grayscale values to the ink correlation table.

If you specify **-p yes** with **-k** *solid_color_name***:srgb** or **-k** *solid_color_name***:lab**, RICOH InfoPrint XT also creates a full palette of color + black + white shaded colors for each of the solid colors you specify. Each of these palettes contains CIELAB values for the solid color and all the shaded colors associated with the solid color, based on the alphanumeric **XEROX1** ink catalog naming convention: **H***n* (color + white), **K***n* (black + white), or **H***n***K***n* (color + black + white).

If you specify **-p yes** with **-k** *solid_color_name***:gs**, RICOH InfoPrint XT also creates a palette of 15 grayscale shades using the **K***n* names from the **XEROX1 MONO** palette. In this palette, **K100** has the grayscale value that you specifiy for *solid_color_name*.

If the color and its shades already exist in the table, RICOH InfoPrint XT replaces their CIELAB or grayscale values with the solid color values you specify, and the CIELAB values that it calculates for the shades.

[[-l L: *minimum***:***maximum***:***values_count***]**

[-l a:*minimum***:***maximum***:***values_count* **]**

[-l b:*minimum***:***maximum***:***values_count* **]]**

Specifies the CIELAB value limits that RICOH InfoPrint XT uses when processing the **–f color_spectrum** function.

minimum

Is an integer value representing the minimum **L**, **a** or **b** CIELAB value. The supported *minimum* range for **L** is 10 through 90. The supported *minimum* range for **a** and **b** is -110 through 110.

maximum

Is an integer value representing the maximum **L**, **a** or **b** CIELAB value. The supported *maximum* range for **L** is 10 through 90. The supported *maximum* range for **a** and **b** is -110 through 110.

values_count

Is an integer value representing the number of values that RICOH InfoPrint XT uses in the minimum to maximum range, including the minimum and maximum values. The supported *values_count* range for **L** is 1 through 80. The supported *values_count* range for **a** and **b** is 1 through 220.

For example, if you specify :

```
-l L:40:70:4 -l a:-100:100:6 -l b:-75:75:7
```

the RICOH InfoPrint XT **–f color_spectrum** function generates an assortment of colors using all possible combinations of the CIELAB values:

```
L = (40,50,60,70)
a = (-100,-60,-20,20,60,100)
b = (-75,-50,-25,0,25,50,75)
```

When calculating values for the **–f color_spectrum** function, RICOH InfoPrint XT always includes the minimum and maximum values that you specify. It then calculates the intermediate values as integers, using rounding if necessary. For example, if you specify

```
-l L:10:20:7
```

RICOH InfoPrint XT will use these values:

```
L = (10,12,13,15,17,18,20)
```

If you do not specify the **–l** parameter, the default values are:

```
-l L:20:80:7 -l a:-110:110:12 -l b:-110:110:12
```

[-m letter | A4]

Specifies the medium (paper) size that RICOH InfoPrint XT uses when it creates samples of colors in the ink correlation table. If you do not specify the **–s** option with all or *solid_color_name*, RICOH InfoPrint XT ignores the **–m** option.

[-n *solid_color_name* **]**

Specifies a solid color name for the **–f color_select** function.

[-p yes | no]

Indicates whether RICOH InfoPrint XT should generate a complete palette of color + black + white shaded colors for each of the solid colors you specify for the **–f load, -f edit, -f color_spectrum or -f color_collections** functions.

yes

RICOH InfoPrint XT generates color + black + white shaded colors using the ink naming convention **XEROX1.***solid_color_name*.**H***nn***K***nn*, where *solid_color_name* is the name of a solid color that you specify in the **–k** parameter. If the solid color name already exists in the ink correlation table, RICOH InfoPrint XT replaces all of the shaded color entries associated with it. If the solid color name does not exist in the ink correlation table, RICOH InfoPrint XT generates associated shaded color entries and adds them to the table, along with the new solid color entry.

no

RICOH InfoPrint XT does not generate color + black + white shaded colors

Note

In the syntax for **color_collections** function, the default value of this parameter is **no**.

[-r *old_name*:*new_name* **]**

Specifies the old and new solid color names for the **–f copy** and **–f rename** function. *old_name* and *new_names* are values from 1 to 32 characters. The names must be alphanumeric. They cannot contain any special characters. If *old_name* or *new_name* contains embedded blanks, you must enclose it in double quotes. RICOH InfoPrint XT stores the name in uppercase in the ink correlation table.

[-s none | all | solid_colors | collection_colors | *solid_color_name* **]**

Specifies the color sets that RICOH InfoPrint XT should sample.

none

RICOH InfoPrint XT does not create AFP sample jobs for any of the colors in the ink correlation table. This is the default.

all

RICOH InfoPrint XT creates AFP sample jobs for each of the solid colors in the ink correlation table and their associated shades.

solid_colors

RICOH InfoPrint XT creates an AFP sample job for all of the solid colors in the ink correlation table.

collection_colors

RICOH InfoPrint XT creates an AFP sample job for all of the predefined solid colors in the ink correlation table, ordered by collections. The collection of colors contains 75 predefined colors organized into various groups.

Note

For the complete list of predefined colors and collections, also see InfoPrint XT Custom Color Collections, p. 403.

solid_color_name

RICOH InfoPrint XT creates an AFP sample job for the solid color you specify, with its associated shades.

[-t auto | solid | black | shade]

Controls how RICOH InfoPrint XT selects output colors associated with a specified solid color when it processes shaded inks specified for IMGs, or text in FRMs or input data streams.

The **–t** parameter does not affect how RICOH InfoPrint XT processes highlight color shading in FRMs. RICOH InfoPrint XT uses the specified shaded ink when it processes highlight color shading generated by the FILL parameter of the BOX FSL command.

auto

RICOH InfoPrint XT emulates Xerox color selection. This is the default.

solid

RICOH InfoPrint XT selects the associated solid color for all shaded inks.

black

RICOH InfoPrint XT selects black for all shaded inks.

shade

RICOH InfoPrint XT selects the specified shaded ink.

[-u *solid_color_name***:all | solid_color | shades | samples]**

For the **-f delete** function, specifies the ink correlation table entries that RICOH InfoPrint XT should delete.

all

RICOH InfoPrint XT deletes the *solid_color_name*, the associated palette of color + black + white shaded colors and the associated AFP sample file. This is the default.

solid_color

RICOH InfoPrint XT deletes the *solid_color_name* and the associated palette of shaded colors. It does not delete the associated AFP sample file.

shades

RICOH InfoPrint XT deletes the palette of shaded colors associated with *solid_color_name*. It does not delete *solid_color_name* or the associated AFP sample file.

samples

RICOH InfoPrint XT deletes the AFP sample file associated with *solid_color_name*. It does not delete *solid_color_name* entry or the associated palette of shaded colors.

solid_color_name

Specifies a solid color ink name in the ink correlation table. RICOH InfoPrint XT identifies the ink correlation table entry internally as **SOLID.SIMPLE.***solid_color_name*.

For more information about **pdxtcolor** command, see 5032 message explanations, p. 351.

Streams used by the pdxtcolor command

The **pdxtcolor** command uses some file descriptors while it processes ink correlation tables 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 pdxtcolor command

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

0

The command successfully processed all the requests.

EINVAL (22)

An error exists with one of the command options.

E2BIG (7)

The command contains too many command options.

ENOATTR (61)

You specified a command option without a value, or you did not specify a required command option.

ENOMEM (12)

Not enough memory is available for the command.

ECONNABORTED (103)

The command failed because of a non-zero return code from an associated subcommand.

ECONNRESET (104)

The command failed, 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 codes for Linux, p. 398.

```
+ – – – – – End of Programming Interface information – – – – – +
```

Creating manual correlation entries for inks

To make manual correlations for highlight color inks, create a **tab.mkt** file in the appropriate metrics directory. In the table, you can correlate a highlight color ink name to CIELAB values. The syntax for entries in the **tab.mkt** and **tab.skt** ink correlation table source files is:

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0
K ccccc pppppppppppppppppppppppppppppp iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii TV LLL.LL  aaaa.aa bbbb.bb
```

Syntax for entries in ink correlation table source files

Sy-mb-ol	Columns	Description
K	1	ink correlation table entry identifier
c	3 – 8	ink catalog name: 6 bytes
p	10 – 41	palette name: 32 bytes
i	42 – 74	ink name: 32 bytes
T	76	interpretation control: **H**=solid color; **K**=black (device presentation default); **S**= specified shaded ink
V	77	values type: **C** = CIELAB; **G** = grayscale percent of coverage
L	79 – 84	when values type = **C**, CIELAB *L* value* (0.00 through 100.00); when values type = **G**, grayscale percent of coverage value (0.00 through 100.00)
a	86 – 92	when values type = **C**, CIELAB *a* value* (-128.00 through 127.00); otherwise blank
b	94 – 100	when values type = **C**, CIELAB *b* value* (-128.00 through 127.00); otherwise blank

Catalog names, palette names and ink names must be alphanumeric, and must not contain any special characters.

For solid color entries, the catalog name must be **SOLID** and the palette name must be **SIMPLE**. For example:

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0

K SOLID SIMPLE                  MIDNIGHT                HC 15.00 -50.00 -65.00
K SOLID SIMPLE                  TURQUOISE               HC 65.00 -30.00 -40.00
K SOLID SIMPLE                  OLIVE                   HC 35.00 -14.00   2.00
K SOLID SIMPLE                  ORANGE                  HC 64.00  49.00  64.00
K SOLID SIMPLE                  CHARCOAL                KG 55.00
```

The interpretation control character indicates how RICOH InfoPrint XT should interpret the color when it is specified for presenting text or for converting highlight color IMG files. **H** indicates that RICOH InfoPrint XT uses the related solid color. **K** indicates that RICOH InfoPrint XT will use black. **S** indicates that RICOH InfoPrint XT uses the specified shaded ink. For example:

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8----+----9----+----0

K XEROX1 CARDINAL               H49K1                   SC  75.96  35.28   8.47
K XEROX1 CARDINAL               H4K1                    HC  96.15   3.57   0.21
K XEROX1 CARDINAL               H4K13                   KC  85.62   2.90   0.57
```

The values type character indicates whether the values that follow are CIELAB (**C**) or grayscale (**G**).

When converting FRMs, if the interpretation control character is **H** or **S**, RICOH InfoPrint XT uses the specified shaded ink when it processes highlight color shading generated by the FILL parameter of the BOX FSL command.

Processing a manual ink correlation table

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

1. Log in to the RICOH InfoPrint XT system with a Linux user name that is a member of the **printq** group.
2. If you made modifications for the common resources (located in **/var/pdxt/resources/common**), process the **tab.mkt** manual ink correlation table source file by entering the **pdxtcolor** command without any options:

```
pdxtcolor
```

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

```
pdxtcolor -g statements
```

   If the **tab.mkt** file contains values for new or existing solid colors, use the **-p** option with the **pdxtcolor** command to control whether RICOH InfoPrint XT generates a complete palette of color + black + white shaded colors for each of the solid colors. For example:

```
pdxtcolor -p no
```

   RICOH InfoPrint XT displays information that is similar to this:

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

For more information about **pdxtcolor** command, see RICOH InfoPrint XT color messages: 5032-*nnn*, p. 351.

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 (binary LPS-labeled) to deblocked (80–byte card-image text). After you have completed the tasks for the deblocked resources, you reblock them. RICOH InfoPrint XT provides two commands, **pdxtdblkres** and **pdxtblkres**, that you can use to deblock and block resources.

The user name that you use to enter the **pdxtdblkres** and **pdxtblkres** commands must be a member of the **printq** group.

Using the pdxtdblkres command to deblock resources

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

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.

[*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 pdxtdblkres command

The **pdxtdblkres** 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 pdxtdblkres command

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

0

The command successfully deblocked the resource.

EINVAL (22)

Invalid argument

other

Any other return codes that are not in this list are return codes from C functions. See Return codes for Linux, p. 398.

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

Restrictions

The **pdxtdblkres** command can only deblock these types of Xerox resources:

- CMDs
- FSLs
- ISLs
- JSLs

Note

RICOH InfoPrint XT automatically runs the **pdxtdblkres** command when it loads these types of resources with the **pdxtloadres** command. Therefore, you can read the contents of the metrics files for these types of resources when the load process completes. If you loaded resources with a version of RICOH InfoPrint XT 2.1, before product update 13, reload these types of resources to generate readable versions of the metrics files.

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 CMD, FSL, ISL, or 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 (22)

Invalid argument

other

Any other return codes that are not in this list are return codes from C functions. See Return codes for Linux, p. 398.

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

Restrictions

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

- CMDs
- FSLs
- ISLs
- JSLs

InfoPrint XT JSL (Job Source Library) Metrics Compiler

This compiler produces reformatted environment control resource files from JSL files.

The JSL Metrics Compiler performs these tasks:

- Reads and parses JSL files that can exist in any of these formats:
  - LF-delimited ASCII text files
  - CRLF-delimited ASCII text files
  - EBCDIC text files
  - Binary 80-byte card-image format files
- Creates reformatted binary environment control file resources in the formats used by RICOH InfoPrint XT during data stream conversions. This table shows the existing relationships between original Xerox environment control resource types and the corresponding reformatted resource types that RICOH InfoPrint XT creates using the **pdxtloadres** command. The **pdxtpdl** command creates these same reformatted resource types when it compiles JSL files.

Original Xerox Resource Type	Reformatted Resource in /var/pdxt/.../metrics
file_name.jdl	file_name.ajd
file_name.cme	file_name.ace
file_name.pde	file_name.apd
file_name.stk	file_name.ast
file_name.tst	file_name.ats

Note

The **pdxtpdl** command does not create JDLs, CMEs, PDEs, STKs or TSTs in their original Xerox formats when it compiles JSLs. You cannot use the reformatted resources that the **pdxtpdl** command creates to print jobs on a Xerox printer.

Using the pdxtpdl command to compile Xerox JSL resources

You use the RICOH InfoPrint XT **pdxtpdl** command to compile JSL files and create reformatted environment control resources. The **pdxtpdl** command can process JSL statements contained in files that have binary resource extensions, such as **.jdl**, **.cme**, **.idr**, **.pde**, **.stk**, or **.tst**, in addition to files that have the **.jsl** extension.

The command provides options that you can use to control how and where RICOH InfoPrint XT creates the reformatted resource files. After the **pdxtpdl** command compiles the JSL resources, you do not have to load any associated resource files with the **pdxtloadres** command. RICOH InfoPrint XT automatically uses the compiled resources when it processes jobs that require the resources.

Note

The Linux user name that you run the **pdxtpdl** command from must be a member of the Linux **printq** group.

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

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

pdxtpdl [-e listings | nolistings]
[[-g common | *resgrp*] | -o *outputdirectory*]
[-h 0 | 1 | 2 - 20]
[-H color | nocolor]
[-m letter | *medium*]
[-r | -j *pattern* | -s]
[-l *listfile* | -n *pattern*]
[-t truncate | notruncate]
[*file* ...]

[-e listings | nolistings]

Controls whether RICOH InfoPrint XT writes the listings from the individual steps of the JSL compilation process to standard error. These listings can contain error information. Valid values are:

listings:

RICOH InfoPrint XT writes the listings to standard error.

nolistings

RICOH InfoPrint XT does not write the listings to standard error. This is the default.

[-g common | *resgrp*]

Specifies a resource group name that RICOH InfoPrint XT uses to build subdirectories in the **/var/pdxt/resources** directory. RICOH InfoPrint XT uses these subdirectories to store the reformatted resource files that the **pdxtpdl** command creates. Valid values are:

common

RICOH InfoPrint XT builds subdirectories in **/var/pdxt/resources/common**. This is the default.

resgrp

RICOH InfoPrint XT builds subdirectories in **/var/pdxt/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 **pdxtpdl** command uses the common resource group, which is **/var/pdxt/resources/common**.

[-h 0 | 1 | 2 - 20]

Controls how InfoPrint XT processes horizontal tab characters in JSLs. Valid values are:

0

InfoPrint XT converts horizontal tab characters to blanks internally, but does not expand the tabs into strings of blanks. This is the default.

1

Specifying **1** is the same as specifying **0**.

2–20

During internal processing, RICOH InfoPrint XT converts horizontal tab characters to blanks and expands the tabs into strings of blanks. The **-h** value you specify should correspond to the tab spaces setting on the system where you created the JSL.

For example, if the system where you created the JSL uses the typical ASCII standard of 8 tab spaces, you should specify **-h** 8. RICOH InfoPrint XT then converts each tab character to a blank followed by 7 blanks, for a total of 8 blanks.

RICOH InfoPrint XT horizontal tab character expansion might be most useful when compiling JSLs that contain horizontal tab characters, and also contain Xerox sequence numbers in bytes 75 to 80 of the JSL records.

[-H color | nocolor]

Controls how RICOH InfoPrint XT processes color specifications in Xerox JSL resources.

color

RICOH InfoPrint XT processes color specifications in Xerox JSL resources.

nocolor

RICOH InfoPrint XT ignores color specifications in Xerox JSL resources. This is the default

[-m letter | *medium* **]**

Specifies the medium (paper) size that RICOH InfoPrint XT uses when it compiles Xerox JSL resources. The **letter** paper size is the default.

Valid paper sizes are:

Values
`-m folio`
`-m ledger`
`-m legal`
`-m letter`
`-m A3`
`-m A4`
`-m A4LT`
`-m B4`

Note

RICOH InfoPrint XT only uses the paper size that you specify if the Xerox JSL resource does not explicitly define OUTPUT PAPERSIZE. Any OUTPUT PAPERSIZE value in the resource overrides the value of the **-m** option.

[-o *outputdirectory* **]**

Specifies an existing directory where you want RICOH InfoPrint XT to store the reformatted resources that the **pdxtpdl** command creates. Use this option to store resources in a directory other than **/var/pdxt/resources/common** or **/var/pdxt/resources/***resgrp*.

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

Note

If the directory that you specify does not exist or you do not have permission to write to the directory, RICOH InfoPrint XT issues an error message.

[-r | -j *pattern* **| -s]**

Specifies how **pdxtpdl** processes the reformatted metrics resources that it creates. The processing options are:

-r:

When compiling a JSL file, the **pdxtpdl** command creates new versions of all Xerox resources that the JSL defines. This includes JDLs and any other standalone Xerox resources that the JSL defines, such as PDEs and CMEs.

If you specify the **-r** option, you cannot specify the **-j** option or the **-s** option.

-j *pattern*

Specifies which Xerox resources the **pdxtpdl** command compiles within the JSLs that it processes. The **pdxtpdl** command creates new versions of all resources that you specify. If you specify more than one JSL using the **-n** parameter, and **pdxtpdl** finds the internally defined resources that you specify with the **-j** parameter in more than one of the JSLs, it uses the last occurrence of each resource that it finds. You can use pattern-matching strings to specify groups of resources. You can specify more than one pair of **-j** options and patterns, up to a maximum of 50.

For example:

- To compile all internally defined JDLs, but not any other type of resources within each JSL, specify:

```
pdxtpdl -j "*.jdl"
```

- To compile only the internally defined resource ABC.CME within each JSL, specify:

```
pdxtpdl -j "abc.cme"
```

- To compile only the internally defined PDEs whose names begin with "FMT" within each JSL, specify:

```
pdxtpdl -j "fmt*.pde"
```

- When you specify multiple pairs of the **-j** parameter, separate the pairs with blanks. RICOH InfoPrint XT processes all the patterns that you specify in a single invocation of the compiler:

```
pdxtpdl -j "*.stk" -j "xyz.jdl" -j "clear.cme"
```

If you specify the **-j** option, you cannot specify the **-r** option or the **-s** option.

-s

When compiling a JSL file, the **pdxtpdl** command only creates a new version of a Xerox resource that the JSL defines if it does not find a reformatted version of the resource in the **metrics** directory. If you specify more than one JSL using the **-n** parameter, and **pdxtpdl** creates new reformatted versions of any internally defined resources in more than one of the JSLs, it uses the last occurrence of each resource that it finds.

If you specify the **-s** option, you cannot specify the **-r** option or the **-j** option.

[-l *listfile* **| -n** *pattern* **]**

Specifies the JSL resources that you want the **pdxtpdl** command to compile:

-l *listfile*

listfile is either a file on the Linux 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 one of these formats:

-l -

If you use a dash as the value for the **-l** option, the pdxtpdl command reads the resource name from standard input.

-l fd:*n*

If you use the **fd:***n* format, the pdxtpdl command reads the resource names from the file descriptor that you specify. *n* is the file descriptor number; for example **fd:7.**

If you specify the **-l** option, you cannot specify the **-n** option.

Note

1. You cannot use wildcard characters in the entries in the list file.
2. You can specify Xerox JSL resources with names that follow IBM Infoprint XT for z/OS naming conventions. See IBM Infoprint XT for z/OS naming conventions for Xerox resource files, p. 108.
3. You can specify the **-l** option without a value. The **pdxtpdl** command tries to load resources using the retry file.

-n *pattern*

Specifies the Xerox JSL resources to compile. You can use Linux 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.

For example:

- To compile all Xerox JSL files in the directory **jslsrc**, specify:

```
pdxtpdl -n "C:\jslsrc\*.jsl"
```

- To compile all resources in the current directory that begin with the letter **a**, specify:

```
pdxtpdl -n "a*.jsl"
```

If you specify the **-n** option, you cannot specify the **-l** option.

Note

1. When you compile JSL resources, the **pdxtpdl** command also recognizes IBM Infoprint XT for z/OS naming conventions for Xerox resource files. See Using the pdxtloadres command to load Xerox resources, p. 99.
2. You can transfer Xerox resources from a z/OS partitioned data set (PDS) to the Linux system using a method such as File Transfer Protocol (FTP). The Xerox resource data sets have specific naming conventions.

[-t truncate | notruncate]

Specifies whether the **pdxtpdl** command reads only the first 72 bytes of each input JSL record or all 80 bytes. Valid values are:

truncate

The **pdxtpdl** command only reads the first 72 bytes of each JSL input record. This is the default.

notruncate

The **pdxtpdl** command only reads all 80 bytes of each JSL input record.

[*file* **...]**

Specifies one or more Xerox JSL files that you want to compile with the **pdxtpdl** command. All **pdxtpdl** parameters that you specify must precede the JSL file or files.

Streams used by the pdxtpdl command

The **pdxtpdl** 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

fd3

If you define this stream, the command writes one record for each resource that it successfully compiles. The command always reports the resource name in lowercase characters, such as **default.jsl**

fd8

The default is that RICOH InfoPrint XT appends information about the resource compilation process to the **pdxtpdl.log** file, which is in the directory for the resource group. If you define the **fd8** stream, the command redirects the information to this file descriptor. RICOH InfoPrint XT does not delete the **pdxtpdl.log** file from the directory for the resource group.

Note

RICOH InfoPrint XT writes the output from file descriptor eight (**fd8**) to the **pdxtpdl.log** file in the working directory for the resource compilation process. This file contains the names of the resources that RICOH InfoPrint XT compiled.

fd9

The command writes a file that contains problem determination information to file descriptor nine (**fd9**). It uses the Linux **pax** command to generate a compressed archive of the resource directory. The archive is in USTAR format.

Return codes from the pdxtpdl command

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

0

The command successfully compiled all the specified resources.

EINVAL (22)

Invalid argument

E2BIG(7)

Argument list too long

ENOENT (2)

No such file or directory.

ENOMEM (12)

Cannot allocate memory.

EEXIST (17)

File exists.

ECONNABORTED (103)

Software caused connection abort.

ECONNRESET (104)

Connection reset by peer.

other

Any other return codes that are not in this list are return codes from C functions. See Return codes for Linux, p. 398.

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

7. Submitting Xerox jobs for data stream conversion

- **Processing Xerox jobs with InfoPrint Manager**
- **Processing Xerox jobs with RICOH ProcessDirector**
- **Using the pdxtx2afp command to process Xerox jobs**
- **Processing jobs that contain FILE DJDE commands**
- **Processing jobs that contain stapling commands**

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

```
man pdxt_jobs
```

Whether you use RICOH InfoPrint XT with InfoPrint Manager or RICOH ProcessDirector determines how you use RICOH InfoPrint XT to convert the jobs. See the appropriate topic for the type of installation: **Processing Xerox jobs with InfoPrint Manager** below, or Using the pdxtx2afp command to process Xerox jobs, p. 154.

Processing Xerox jobs with InfoPrint Manager

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

Document attributes that you specify for processing

You can use several InfoPrint Manager document attributes when you process Xerox jobs with RICOH InfoPrint XT. Whether you use an RICOH InfoPrint XT parameter mapping file influences which attributes you use for a job. See Creating a custom parameter mapping file, p. 61.

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 Conversion parameters for converting Xerox jobs, p. 199. This is an example of specifying conversion parameters with the **other-transform-options** attribute:

```
-x "other-transform-options='xjdl=p1mvs xjde=dflt xrecfm=fixed
xlrecl=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=/var/pdxt/resources/common
```

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 pdxtloadres command to load Xerox resources, p. 99.

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 RICOH 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 **pdxtloadres** command. You can specify one or more keyword and value pairs. See Using the pdxtx2afp command to process Xerox jobs, p. 154 for an example of keyword and value pairs that RICOH 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 Conversion parameters for converting Xerox Jobs, p. 199 for more information.

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, p. 65. 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

RICOH 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 Transferring jobs with Download for z/OS, p. 161, and Using the pdpr command to transform and print Xerox jobs, p. 153.

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, p. 436 lists InfoPrint Manager publications.

How RICOH InfoPrint XT searches for resources

Before you submit Xerox jobs for processing by RICOH InfoPrint XT, you must load all the Xerox resources that the jobs require on the . 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 RICOH InfoPrint XT. This lists the locations in the order that RICOH 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.

Note

1. Other InfoPrint Manager attributes specify resource paths, such as **resource-context-font** and **resource-context-form-definition**. RICOH InfoPrint XT ignores the path information specified with these attributes.
2. When you process jobs that contain FILE Dynamic Job Descriptor Entry commands, RICOH InfoPrint XT also uses this search path hierarchy. For FILE DJDE commands that specify the **P** storage parameter, RICOH 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 **/var/pdxt/resources/pdxttest** and the **resource-context** actual destination attribute specifies **/var/pdxt/resources/common**, RICOH InfoPrint XT loads the FILE DJDE resources in the **/var/pdxt/resources/pdxttest** directory. For more information about FILE DJDE storage parameters, see Processing jobs that contain FILE DJDE commands, p. 158.

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 RICOH InfoPrint XT conversion parameters directly from the command line.

To submit the job **SIMPLEX**, which is in the **/home/inputdata/jobs** directory, to the **pdxt-ld** logical destination:

```
pdpr -d pdxt-ld -x document-format=metacode \
-x "other-transform-options='xjdl=p1mvs xjde=dflt xrecfm=f xlrecl=133 xcc=m'" \
-x resource-context=/var/pdxt/resources/test \
/home/inputdata/jobs/SIMPLEX
```

Processing Xerox jobs with RICOH ProcessDirector

These topics apply to installations that use RICOH ProcessDirector.

When processing Xerox jobs with RICOH ProcessDirector, you should use an RICOH InfoPrint XT parameter mapping file to specify the attributes you want to use for a job. See Creating a custom parameter mapping file, p. 61. You can also specify the job attributes using the **pdxtx2afp** command options. See Using the pdxtx2afp command to process Xerox jobs, p. 154.

You must also tell RICOH ProcessDirector where to find the AFP resources that RICOH InfoPrint XT used to process each Xerox job. To specify the location of the RICOH InfoPrint XT AFP resources in the RICOH ProcessDirector GUI, select the appropriate **Job Type**, open the **PrintJobs** step and enter an RICOH InfoPrint XT AFP resource path, such as **/var/pdxt/resources/common**, in the **AFP resource path** property.

Using the pdxtx2afp command to process Xerox jobs

If you do not have InfoPrint Manager or RICOH ProcessDirector installed, use the RICOH 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 or RICOH ProcessDirector and RICOH InfoPrint XT installation. You might find this useful to use the AFP that RICOH InfoPrint XT generates for other purposes, or to verify that a job will convert.

Note

1. This topic shows the default values for **pdxtx2afp** command options as supplied by RICOH 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), p. 57. You can also affect the default values for the **pdxtx2afp** command using a parameter mapping file. See Creating a custom parameter mapping file, p. 61.
2. You can control some aspects of the conversion process using transform directives. See Using transform directives, p. 65.

+ – – – – – – Programming Interface information – – – – – +

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* **]**
[-a *jobcapturearchive***]**

[-a *jobcapturearchive***]**

Specifies the name of an archive file that contains the captured job information, including the input and the output files, the data stream conversion log, and the resources used to convert the job. When you specify the **-a** parameter, **pdxtx2afp** forces the **xinlr=all** parameter in order to capture all the resources required by the input stream. RICOH InfoPrint XT saves the job capture archive in the current directory as `jobcapturearchive.tar.gz`.

[-i *inputfile* **| -]**

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

[-o *outputfile* **| -]**

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

[-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**, **pdxtcluster**, **pdxtcolor** or **pdxtpdl** commands. See the **-g** command option for Using the pdxtloadres command to load Xerox resources, p. 99. If you do not specify this command option or the **-r** command option, RICOH 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, RICOH InfoPrint XT uses the value of the last command option specified with the command.

[-p *passthru_values* **]**

Specifies pass-through values that you can use to pass information to RICOH InfoPrint XT, or that you can use to pass information to application exits. If you use InfoPrint Manager with RICOH InfoPrint XT, this is equivalent to the InfoPrint Manager **destination-pass-through** document attribute. To pass information to RICOH 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=**, RICOH InfoPrint XT reads information from the parameter mapping file **pdxtx2afp.map**. It also defines the temporary working directory in **/var/pdxt/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, RICOH 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, RICOH 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, RICOH InfoPrint XT ignores them.

These examples show different methods of specifying the **-p** command option, with keywords and values that RICOH 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 or the **-g** command option, RICOH InfoPrint XT looks for resources in the

/var/pdxt/resources/common directory.

If you specify the **-r** command option, do not specify the **-g** command option. If you specify both, RICOH 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, p. 65.

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

Specifies the Xerox-specific conversion parameters for the job. See Conversion parameters for converting Xerox jobs, p. 199.

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**.

[-w *workingdirectory* **]**

Specifies the working directory that RICOH InfoPrint XT uses when it processes the job. Unless errors occur, RICOH InfoPrint XT always deletes the files that it creates in this directory after conversion finishes successfully. If you do not specify this command option, RICOH InfoPrint XT uses a subdirectory of the directory that the **PDXTWORKDIR** environment variable specifies as the working directory. RICOH 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 RICOH InfoPrint XT uses for variable data (PDXTWORKDIR), p. 56.

Note

1. Any directory that you specify must exist; RICOH InfoPrint XT does not create the directory for you.
2. RICOH 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 RICOH InfoPrint XT to write the AFP data stream that results from conversion to file descriptor one.

fd2 (STDERR)

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

fd3

If you define this file descriptor and RICOH InfoPrint XT tried to convert the job, RICOH InfoPrint XT writes one record that contains the total number of pages that the conversion process produced.

fd9

If you specify the **-d** transform directive, **pdxtx2afp** writes a file that contains problem determination information to file descriptor nine. It uses the Linux **pax** command to generate a compressed archive of the resource directory. The archive is in USTAR format.

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 (22)

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

E2BIG (7)

The parameter list for the command contains too many arguments.

ENOATTR (61)

A parameter is missing.

ECONNABORTED (103)

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

ECONNRESET (104)

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 codes for Linux, p. 398.

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

Examples: pdxtx2afp command

These are examples of **pdxtx2afp** commands for conversion and scanning tasks. Because of the length of the commands, the examples use the line continuation character:

- In this example, the Xerox job and all files that the **pdxtx2afp** command generates are in the **/tmp/waite/51230** directory. The resources for the job are in the RICOH InfoPrint XT common resource library:

```
pdxtx2afp -i /tmp/waite/51230/103355000 \
-o /tmp/waite/51230/103355000.afp \
-r /var/pdxt/resources/common -w /tmp/waite/51230 \
-x 'xjdl=lbb xjde=pay xcc=machine xclb=none xrecfm=variable \
2> /tmp/waite/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 RICOH 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. RICOH 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 /var/pdxt/resources/payroll \
-x 'xjdl=lbb xjde=pay xcc=machine xclb=none xrecfm=variable' \
-x 'xlrecl=32760 xconvert=no xafprc=12' 2> ./scanlist
```

- In this example, the Xerox job and all files that the **pdxtx2afp** command generates are in the working directory **/tmp/mydir**. The resources for the job are in the Infoprint XT **payroll** resource library.

```
pdxtx2afp -i /tmp/mydir/checks.meta \
-o /tmp/mydir/checks.afp -w /tmp/mydir \
-r /var/pdxt/resources/payroll -t "-d resdir -d jobdir" \
-x "xjdl=payrol xjde=strton xclb=checks xcc=m xrecfm=f xlrecl=133" \
2>/tmp/mydir/checks.log
```

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 RICOH InfoPrint XT installation, the search-path hierarchy determines where RICOH InfoPrint XT loads the resources. See How RICOH InfoPrint XT searches for resources, p. 153.

The **P** or **D** storage parameter of the FILE DJDE command determines how long RICOH 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. RICOH 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. RICOH InfoPrint XT provides the **xinlr** conversion parameter, which you can use to specify which permanent resources you want RICOH 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 RICOH InfoPrint XT embeds all types of printable resources. For the syntax of the **xinlr** conversion parameter, see Conversion parameters for converting Xerox Jobs, p. 199.

Processing limitations

In the Xerox environment, the printer can only process one job at a time. Because RICOH 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.

When RICOH InfoPrint XT processes jobs that contain only FILE DJDE resources, the **pdxtx2afp** command might end with a return code of **ECONNRESET (73)**. This return code indicates that all of the data stream and resource conversion processes were successful, but the job produced no AFP output pages.

If you are using RICOH InfoPrint XT with InfoPrint Manager, you can specify the configurable transform attribute **conditional-terminating-return-code** to indicate that the **ECONNRESET** value is an acceptable return code from RICOH InfoPrint XT.

If your are using RICOH InfoPrint XT with RICOH ProcessDirector, you can specify the **ECONNRESET** value as an acceptable return code in the **Valid return codes** field of the **RunExternalProgram** step.

Including resource-load messages for FILE DJDE jobs

The default is that RICOH InfoPrint XT does not include messages about the resources that it loads from FILE DJDE commands. You can instruct RICOH 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), p. 58
- x2afp.lst file, p. 197

Processing jobs that contain stapling commands

You can process jobs that contain Xerox stapling commands with RICOH InfoPrint XT. Xerox OUTPUT STAPLE PDL commands, combined with FACEUP and NTO1 commands, specify stapling actions. RICOH 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
```

RICOH 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 Conversion parameters for converting Xerox jobs, p. 199.

Note

1. Some restrictions apply when RICOH InfoPrint XT processes jobs that contain stapling commands. See Xerox job restrictions, p. 17 for more information.
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.

8. Transferring jobs with Download for z/OS

- **Sending jobs to InfoPrint Manager**
- **Sending jobs to RICOH ProcessDirector**
- **Sending jobs using RICOH ProcessDirector**
- **Processing steps with Download for z/OS and RICOH ProcessDirector**
- **What the RICOH InfoPrint XT pdxtdownload program does**
- **Setting up Download for z/OS**
- **Starting the RICOH ProcessDirector mvsprsd daemon**
- **Stopping the RICOH ProcessDirector mvsprsd daemon**
- **Using JCL parameters to set RICOH ProcessDirector job properties**
- **Starting the InfoPrint Manager mvsprsd daemon**
- **Stopping the InfoPrint Manager mvsprsd daemon**
- **Using JCL parameters to assign InfoPrint Manager attributes**
- **Creating an attribute mapping file**
- **Processing jobs that contain more than one data set**
- **Using download directives**
- **pdxtdownload file naming conventions**
- **Restrictions**
- **Related information**

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

Download for z/OS is a communications mechanism that sends jobs to RICOH ProcessDirector for Linux. It is a separately orderable feature of IBM Print Services Facility (PSF) for z/OS.

Note

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

```
man pdxt_download
```


Sending jobs to InfoPrint Manager

When you use Download for z/OS to send jobs for processing by RICOH 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. The InfoPrint Manager **mvsprsd** daemon process receives the data sets from the output writer on z/OS.
3. The third component is a download program that the InfoPrint Manager **mvsprsd** daemon calls. This program is typically specific to the data stream in use:
   - InfoPrint Manager provides a sample shell script program that receives MO:DCA-P data without inline resources, line data, and mixed mode data sets. The shell script name is **mvsprpsm.sh**.
   - RICOH InfoPrint XT provides a program that receives Xerox Line Conditioned Data Stream 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*. For more information about **mvsprsd** and **mvsprpsm.sh**, see the InfoPrint Manager documentation. Bibliography, p. 436 lists InfoPrint Manager publications.

Sending jobs to RICOH ProcessDirector

When you use Download for z/OS to send jobs for processing by RICOH 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 RICOH ProcessDirector. The RICOH ProcessDirector **mvsprsd** daemon process receives the data sets from the output writer on z/OS.
3. The third component is a download program that the RICOH ProcessDirector **mvsprsd** daemon calls. This program is typically specific to the data stream in use:
   - Download input devices receive data sets from Download for z/OS. Download for z/OS might create a job control language (JCL) file that is sent with the job. RICOH ProcessDirector treats the JCL file as a control file; Download input devices can use this control file to set job properties or to set the job type. RICOH ProcessDirector provides several predefined Download input devices that receive jobs from Download for z/OS.

     Each of the RICOH ProcessDirector Download input devices start their own instance of the **mvsprsd** daemon.
   - RICOH InfoPrint XT provides a program that receives Xerox Line Conditioned Data Stream and metacode jobs. The program name is **pdxtdownload**.
   - If you will use **pdxtdownload** to process Xerox jobs transmitted by Download for z/OS, you must start an **mvsprsd** daemon that is configured to invoke **pdxtdownload**. See Starting the RICOH ProcessDirector mvsprsd daemon, p. 165. Ricoh recommends that you configure your system so that this daemon is restarted automatically when your system or RICOH ProcessDirector is restarted.

     The supplied **DownloadAFP** and **DownloadLineData** Download input devices cannot be configured to invoke **pdxtdownload**.

For more information about the output writer on z/OS, see *Print Services Facility for z/OS: Download for z/OS*. For more information about **mvsprsd**, and Download input devices, see the RICOH ProcessDirector documentation. Bibliography, p. 436, lists RICOH ProcessDirector publications.

Sending jobs using RICOH ProcessDirector

When you use Download for z/OS to send jobs for processing by RICOH 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 RICOH ProcessDirector. The RICOH ProcessDirector **mvsprsd** daemon process receives the data sets from the output writer on z/OS.
3. The third component is a download program that the RICOH ProcessDirector **mvsprsd** daemon calls. This program is typically specific to the data stream in use:

- Download input devices receive data sets from Download for z/OS. Download for z/OS might create a job control language (JCL) file that is sent with the job. RICOH ProcessDirector treats the JCL file as a control file; Download input devices can use this control file to set job properties or to set the job type. RICOH ProcessDirector provides several predefined Download input devices that receives jobs from Download for z/OS.

  Each of the RICOH ProcessDirector Download input devices start their own instance of the **mvsprsd** daemon.
- RICOH InfoPrint XT provides a program that receives Xerox Line Conditioned Data Stream 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*, S550-0429. For more information about **mvsprsd** daemon and Download input devices, see the RICOH ProcessDirector documentation. Bibliography, p. 436 lists RICOH ProcessDirector publications.

Processing steps with Download for z/OS and RICOH ProcessDirector

When you submit Xerox jobs to RICOH ProcessDirector using Download for z/OS processing occurs in two phases:

Phase 1: **pdxtdownload** processing

1. The input to this phase is the job transmitted from a z/OS host to the RICOH ProcessDirector server by Download for z/OS.
2. Start an **mvsprsd** daemon to invoke **pdxtdownload**. For more information , see Starting the RICOH ProcessDirector mvsprsd daemon, p. 165. Ricoh recommends that you configure your system so that this daemon restarts automatically when your system or RICOH ProcessDirector is restarted.

   The **DownloadAFP** and **DownloadLineData** supplied Download input devices cannot be configured to invoke **pdxtdownload** from **mvsprsd**.
3. The **mvsprsd** daemon that you started receives the job from Download for z/OS and invokes **pdxtdownload** to process it.
4. The output of this phase includes a .PRD file, a .JCL file, and a .LST file that **pdxtdownload** writes to the RICOH ProcessDirector Hot Folder input device that you created. For more information about creating a Hot Folder input device, see RICOH ProcessDirector configuration tasks, p. 49.

Phase 2: **pdxtx2afp** data stream conversion

1. The input to this phase is the .PRD, .JCL and .LST files that **pdxtdownload** writes to the RICOH ProcessDirector Hot Folder input device
2. The Hot Folder input device receives the output from **pdxtdownload** as input to the RICOH ProcessDirector workflow that you specify
3. The workflow sends the job, as processed by **pdxtdownload**, to **pdxtx2afp** for data stream conversion.
4. **pdxtx2afp** converts the job to AFP, and sends the AFP back to the RICOH ProcessDirector workflow for printing, viewing, archiving, and so on.

What the RICOH InfoPrint XT pdxtdownload program does

The RICOH InfoPrint XT **pdxtdownload** program receives Xerox LCDS and metacode jobs. If InfoPrint Manager is installed, RICOH InfoPrint XT submits them to InfoPrint Manager using the **pdpr** command. If RICOH ProcessDirector is installed, RICOH InfoPrint XT submits them to a specific RICOH ProcessDirector Input Device based on the Input Device named in the command used to invoke the **pdxtdownload** daemon. 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.

Note

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 **mvsprpsm.sh** sample shell script in installations with InfoPrint Manager..
2. When running with InfoPrint Manager, 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, p. 169, and Creating an attribute mapping file, p. 172.
3. For transmitting Xerox jobs, specifying the default **SEND_REC_LENGTH=YES** in the z/OS routing-control data set causes Download for z/OS to add a 2–byte length field to the beginning of each record. If you specify **SEND_REC_LENGTH=YES**, set the **xrecfm** conversion parameter for the jobs to **variable** on the Linux system.
4. 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 specify the **SEND_REC_LENGTH=YES** routing parameter, the 2–byte length field that Download for z/OS, adds to each record prevents InfoPrint Manager from correctly recognizing the data format as PCL or PostScript.

8

Note

You do not have to use **pdxtdownload** to receive Xerox LCDS and metacode jobs. You can write your own program.

Setting up Download for z/OS

Print Services Facility for z/OS: Download for z/OS, G550–0429, 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 traditional 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 Linux system. The port number must be the same one that you use when you start the RICOH ProcessDirector **mvsprsd** daemon process on the Linux system. See Starting the RICOH ProcessDirector mvsprsd daemon, p. 165. The next figure shows a sample routing-control data set:

Sample z/OS 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 Linux system with this IP address
SEND_REC_LENGTH=YES, /* add 2-byte length field to each record
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 Linux 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
```

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.

Starting the RICOH ProcessDirector mvsprsd daemon

The RICOH InfoPrint XT **pdxtdownload** program works with the RICOH ProcessDirector **mvsprsd** daemon.

Important

1. The user must be logged on as the RICOH ProcessDirector user ID (the default **aiw1** or another ID that you created).
2. Before creating an **mvsprsd** daemon for **pdxtdownload**, make sure no other **mvsprsd** daemons are already using the same port that you want to use for **pdxtdownload**. To check for other **mvsprsd** daemons, issue this command:

   ```
   ps -ef | grep -i mvsprsd
   ```
3. Also, make sure that no RICOH ProcessDirector input devices specify the same port that you want to use for **pdxtdownload**.

Instead of invoking the **pdxtdownload** program directly, start it through the **-x** command option when you start the **mvsprsd** daemon. You must also specify other **mvsprsd** command options. Some are required and others are optional. An underline denotes the required options:

-d *Directory*

Specifies the name of the working directory that the **mvsprsd** daemon uses when it receives a data set. The **pdxtdownload** program also stores log information in this directory.

You can use any directory that you want for the **-d** command option. However, you must create the directory before you start the **mvsprsd** daemon. Consider using one of these conventions:

- One directory for all TCP/IP ports: **/var/pdxt/download**
- One directory for each TCP/IP port: **/var/pdxt/download/***portnumber*

-k

Causes the **mvsprsd** daemon to retain JCL files for use with RICOH ProcessDirector.

-n 1

Causes the **mvsprsd** daemon to receive one job at a time. You must specify this option to merge a job with several data sets into a single job.

-p *portnumber*

Specifies the TCP/IP port number that the **mvsprsd** daemon uses when it communicates with the output writer on z/OS. This number must be the same as the one that the routing-control data set specifies on z/OS. See Setting up Download for z/OS, p. 164.

-q "'*input_device* **[** *directives* **...]'"**

Specifies the RICOH ProcessDirector input device that the **pdxtdownload** program uses. The value you specify must be **aiw1**:*input_device_name*, where *input_device_name* is the name of the desired RICOH ProcessDirector input device name. At minimum, you must specify the input device. You can also specify download directives that control how **pdxtdownload** processes data sets. See Using download directives, p. 174.

If the RICOH ProcessDirector input device you specify with the **-q mvsprsd** parameter uses a folder location (hot folder), you should specify the name of that hot folder in the **-h** download directive.

Note

The notation is an outer set of double quotation marks and an inner set of single quotation marks. You do not have to use this notation if you specify only the name of the input device.

-x /opt/infoprint/pdxt/download

Causes the **mvsprsd** daemon to call the **pdxtdownload** program whenever it receives a data set from z/OS. You must include the path information.

-X "*directives***"**

Specifies download directives that control how the **pdxtdownload** program processes data sets. These are the same directives that you can specify with the **-q** option. If you specify both the **-X** command option and the **-q** command option, RICOH InfoPrint XT ignores any directives specified through **-q**.

Note

You might find that using the **-X** command option is simpler than specifying directives with the **-q** command option. This is because **-X** does not require sets of different types of quotation marks.

Note

1. In a RICOH ProcessDirector environment, you must start any **mvsprsd** daemons that will invoke **pdxtdownload**. RICOH ProcessDirector cannot invoke **pdxtdownload** from the **mvsprsd** daemons that it starts automatically.
2. In a RICOH ProcessDirector environment, the port numbers that you specify when you start **mvsprsd** must be different from the ones used by any **mvsprsd** daemons that RICOH ProcessDirector starts automatically.
3. To submit jobs to RICOH ProcessDirector, start **mvsprsd** daemon with a command similar to this:

```
mvsprsd -p 6001 -q aiw1~input_device_name-d /var/pdxt/download \
        -k -n 1 -x /opt/infoprint/pdxt/bin/pdxtdownload
```

4. You can verify that the **mvsprsd** daemon started with the parameters that you specified by entering this command:

```
ps -ef | grep mvsprsd
```

5. If you enter a command to start the **mvsprsd** daemon and it is already running, RICOH ProcessDirector does not issue an error message. If you get unexpected results when sending and processing jobs, you might want to verify the parameters for the daemon. Use the **ps** command described in the previous note.

Stopping the RICOH ProcessDirector mvsprsd daemon

RICOH ProcessDirector for Linux provides no automated method of stopping the **mvsprsd** daemon. You must use the Linux **kill** command to kill the process for the daemon:

1. Log in to the Linux system as the root user.
2. From the command line, determine the process ID number for the **mvsprsd** daemon. Enter:

```
ps -ef | grep mvsprsd
```

   The Linux system displays information similar to this:

```
aiw1 17261 0 Jan27 ? 00:00:00 mvsprsd -p 6001 -q aiw1~HotFolderXerox
-d /var/pdxt/download -k -n 1 -x /opt/infoprint/pdxt/bin/pdxtdownload
```

   The number in the second column at the left is the process ID number for the daemon.

3. Kill the daemon process. Enter:

```
kill nnnnn
```

   nnnnn is the process ID number.

Using JCL parameters to set RICOH ProcessDirector job properties

The **pdxtdownload** program prepares and copies the JCL file, the PRD file and the LST file to the designated Hot Folder Input Device.

In RICOH ProcessDirector, in the Input Device **Child workflow initialization step** property, select **SetJobPropsFromRules**. In the Hot Folder input device properties, configure the **Child workflow parsing rules** to specify the default control file: **/aiw/aiw1/control_files/rules/receive_jcl_jobtype.cfg**.

The control file sets initial values for job properties by using values of JCL parameters that accompany a job that was submitted through Download for z/OS. You can write your own control file for this purpose.

In the designated Hot Folder Input Device, set the Batching Method property value to JCL.

Starting the InfoPrint Manager mvsprsd daemon

The RICOH InfoPrint XT **pdxtdownload** program works with the InfoPrint Manager **mvsprsd** daemon. Instead of invoking the **pdxtdownload** program directly, you start it through the **-x** command option when you start the **mvsprsd** daemon. You must also specify other **mvsprsd** command options. Some are required and others are optional. An underline denotes the required options:

-d *Directory*

Specifies the name of the working directory that the **mvsprsd** daemon uses when it receives a data set. The **pdxtdownload** program also stores log information in this directory.

You can use any directory that you want for the **-d** command option. However, you must create the directory before you start the **mvsprsd** daemon. Consider using one of these conventions:

- One directory for all TCP/IP ports: **/var/pdxt/download**
- One directory for each TCP/IP port: **/var/pdxt/download** *portnumber*

-n 1

Causes the **mvsprsd** daemon to receive one job at a time. You must specify this option to merge a job with several data sets into a single job.

-p *portnumber*

Specifies the TCP/IP port number that the **mvsprsd** daemon uses when it communicates with the output writer on z/OS. This number must be the same as the one that the routing-control data set specifies on z/OS. See Setting up Download for z/OS, p. 164.

-q "'*ldest* **[***directives* **...]'"**

Specifies the default logical destination that the **pdxtdownload** program uses. At minimum, you must specify the destination. You can also specify download directives that control how **pdxtdownload** processes data sets. See Using download directives, p. 174.

Note

The notation is an outer set of double quotation marks and an inner set of single quotation marks. You do not have to use this notation if you specify only the name of the logical destination.

-x /opt/infoprint/pdxt/bin/pdxtdownload

Causes the **mvsprsd** daemon to call the **pdxtdownload** program whenever it receives a data set from z/OS. You must include the path information.

-X "*directives*"

Specifies download directives that control how the **pdxtdownload** program processes data sets. These are the same directives that you can specify with the **-q** option. If you specify both the **-X** command option and the **-q** command option, RICOH InfoPrint XT ignores any directives specified through **-q**.

Note

You might find that using the **-X** command option is simpler than specifying directives with the **-q** command option. This is because **-X** does not require sets of different types of quotation marks.

Starting the **mvsprsd** daemon to submit jobs to InfoPrint Manager:

```
mvsprsd -p 6001 -q prtxt-ld -d /var/pdxt/download \
        -n 1 -x /opt/infoprint/pdxt/bin/pdxtdownload
```

Notes

1. You can make sure that the **mvsprsd** daemon started with the parameters that you specified by entering this command:

```
ps -ef | grep mvsprsd
```

2. If you enter a command to start the **mvsprsd** daemon and it is already running, InfoPrint Manager for Linux does not issue an error message. If you get unexpected results when sending and processing jobs, you might want to verify the parameters for the daemon. Use the **ps** command described in the previous note.

Stopping the InfoPrint Manager mvsprsd daemon

InfoPrint Manager for Linux provides no automated method of stopping the **mvsprsd** daemon. You must use the Linux**kill** command to kill the process for the daemon:

1. Log in to the Linux system as the root user.
2. From the command line, determine the process ID number for the **mvsprsd** daemon. Enter:

```
ps -ef | grep mvsprsd
```

   The Linux system displays information similar to this:

```
user_id 1726 1 0 Jan27? 00:00:00 mvsprsd -p 6001 -q prtxt-ld
d /var/pdxt/download -n 1 -x /opt/infoprint/pdxt/bin/pdxtdownload
```

   The number in the second column at the left is the process ID number for the daemon.

3. Kill the daemon process. Enter:

```
kill nnnnn
```

   nnnnn is the process ID number.

Using JCL parameters to assign InfoPrint Manager attributes

When the **mvsprsd** daemon 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. The next table shows how **pdxtdownload** uses the options and values that it receives from **mvsprsd**.

The **pdxtdownload** program prepares and copies the JCL file, the PRD file and the LST file to the designated Hot Folder.

InfoPrint Manager attribute assignments when using the pdxtdownload program

Information from z/OS that passes to mvsprsd	mvsprsd 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 (See Note 2.)
DATACK	-odatac	data-fidelity-problem-reported
DCB=RECFM	-occ -occtype	Not applicable (See Note 1.)
DCB=OPTCD=J	-otrc	Not applicable (See Note 1.)
Not applicable	-odatat	Not applicable (See Note 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 (See Note 1.)
FORMDEF	-of	Not applicable (See Note 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
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	-ooutbin	Not applicable
OVERLAYB	-oovlyb	Not applicable(See Note 1.)
OVERLAYF	-oovlyf	Not applicable(See Note 1.)
PAGEDEF	-opagedef	Not applicable(See Note 1.)
PRMODE	-oprmode	shift-out-shift-in
Programmer	-opr	programmer-text
PRTQUEUE	-oprtqueue	destination-name-requested (See Note 3.) other attributes (See Note 4.)
RESFMT	-ore	Not applicable (See Note 1.)
ROOM	-oro	room-text
SEGMENT	-opa segmentid	destination-pass-through=-opa=segmentid mvs-segment-id
Source File	-ofileformat	Not applicable (See Note 1.)
TITLE	-oti	title-text
TRC	-otrc	Not applicable (See Note 1.)
UCS	-ochars	Not applicable (See Note 1.)
User ID	-ous	user-id-text

Note

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, p. 174.
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.
5. For jobs with more than one data set, **pdxtdownload** 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

RICOH InfoPrint XT can automatically assign InfoPrint Manager attributes to a job based on criteria that you specify in an attribute mapping file. The default attribute mapping file is **pdxtdownload.map**, located in the **/var/pdxt** directory. You can specify a different file with the **-a** download directive; for more information, see Using download directives, p. 174.

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, RICOH 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 **mvsprsd** options shown in the middle column of InfoPrint Manager attribute assignments when using the pdxtdownload program, p. 170. 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 RICOH 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.
- RICOH 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, RICOH InfoPrint XT uses the last occurrence of the attribute.

The next figure shows examples of various types of attribute groups.

Completed attribute mapping file

```
#-----------------------------------------------#
# 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  #
# /var/pdxt/resources/inventory                 #
#-----------------------------------------------#
class=D
class=E
-ojobn=INV*
resource-context=/var/pdxt/resources/inventory
#-------------------------------------------------------------------#
# Jobs with class D and forms INSURE use resources from             #
# /var/pdxt/resources/insurance#
#-------------------------------------------------------------------#
class=D forms=INSURE
resource-context=/var/pdxt/resources/insurance
```

You can also use substitute values from the **mvsprsd** 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=/var/pdxt/resources/%%forms%%
```

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

```
resource-context=/var/pdxt/resources/BLUE
```

If RICOH InfoPrint XT does not recognize the substitute value, it passes the attribute-and-value pair to InfoPrint ManagerRICOH ProcessDirector for Linux 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 **mvsprsd** daemon. In turn, **mvsprsd** calls the **pdxtdownload** program once for each data set.

If you use the **-m 1document**, **-m 1jobcop**, or **-m 1jobdup** download directive, **pdxtdownload** can submit the data sets to InfoPrint Manager or RICOH ProcessDirector as a single job. You must do these tasks if you use any of the directives that cause **pdxtdownload** 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 Linux, specify the **-n 1** command option when you start the **mvsprsd** daemon. This causes **mvsprsd** to call one instance of **pdxtdownload** at a time.

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 Using download directives, p. 174.

Using download directives

RICOH 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 RICOH InfoPrint XT how to handle jobs that contain more than one data set.

RICOH 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 directory that you specify with the **mvsprsd -d** command option. 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, p. 172.

-c

Specifies how **pdxtdownload** builds the InfoPrint Manager **job-comment** attribute:

options

pdxtdownload stores all the **mvsprsd** 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-** 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 or RICOH ProcessDirector.

files

Keeps attributes files and data set list files after submitting jobs to InfoPrint Manager or RICOH ProcessDirector.

nojobs

Discards job data files after submitting jobs to InfoPrint Manager or RICOH ProcessDirector.

jobs

Keeps job data files after submitting jobs to InfoPrint Manager or RICOH ProcessDirector.

submit

Submits jobs to InfoPrint Manager or RICOH ProcessDirector.

nosubmit

Does not submit jobs to InfoPrint Manager or RICOH ProcessDirector.

Note

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

-e

Specifies arguments to pass to specific application exits. Use this format for the value:

```
"exitname argument..."
```

exitname is the name of the application exit, either **aioxldse** or **aioxldje**, to which **pdxtdownload** passes the arguments. *argument...* is one or more specific arguments.

-h

Specifies the name of a hot folder that **pdxtdownload** uses to submit jobs to RICOH ProcessDirector. The default hot folder name is **/aiw/aiw1/System/hf/pdxt**. RICOH InfoPrint XT ignores this directive if RICOH ProcessDirector is not installed.

If the RICOH ProcessDirector input device you specify with the **-q mvsprsd** parameter uses a folder location (hot folder), you should specify the name of that hot folder in the **-h** download directive.

-i [ippd | ipm]

Specifies whether **pdxtdownload** submits jobs to InfoPrint Manager or RICOH ProcessDirector, when both products coexist on the same Linux system.

ippd Specifies that **pdxtdownload** submits jobs to RICOH ProcessDirector. If RICOH ProcessDirector is installed, this is the default.

ipm Specifies that **pdxtdownload** submits jobs to InfoPrint Manager. If RICOH ProcessDirector is also installed, you must specify this directive in order to submit jobs to InfoPrint Manager.

Note

If RICOH ProcessDirector is not installed, **pdxtdownload** ignores the **-i** directive and submits jobs to InfoPrint Manager. The **-i** directive assumes that InfoPrint Manager is installed, regardless of whether RICOH ProcessDirector is also installed.

-i

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 or RICOH ProcessDirector:

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, p. 181:

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 RICOH InfoPrint XT handles jobs that contain several data sets:

1document

pdxtdownload submits the data sets to InfoPrint Manager or RICOH ProcessDirector 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 or RICOH ProcessDirector 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. If the **pdxtdownload** command submits the data sets to InfoPrint Manager, use this directive for data sets that contain data streams other than Xerox LCDS or metacode, such as PCL or PostScript data sets.

Note

1. This publication does not provide details 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 or RICOH ProcessDirector recognizes PCL and PostScript data by the values in the first bytes of the job. Record-length information prevents InfoPrint Manager or RICOH ProcessDirector 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 or RICOH ProcessDirector 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 or RICOH ProcessDirector 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 RICOH 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 RICOH InfoPrint XT generates might be incorrect. You can use the **xpcctest** conversion parameter to process online jobs with mixed carriage controls that you transfer through methods other than Download for z/OS. See Conversion parameters for converting Xerox jobs, p. 199.

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 and pages:

countrec=no

pdxtdownload does not count records or pages. This is the default.

countrec=yes

pdxtdownload counts records and pages.

When you specify **countrec=yes** to cause **pdxtdownload** to count records and pages, RICOH 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. RICOH 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.

Note

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. RICOH InfoPrint XT ignores this directive when you specify job submission to RICOH ProcessDirector.

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=dfault"
```

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 either or more 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. This example shows how to specify the environment variable in the **/etc/environment** file so that it is available to all users:

```
PDXTDOWNLOAD_DIRECTIVES='-j no -q attr'
```

Do not include delimiters around the value.

This example shows how to specify the environment variable in the **.profile** file for a user ID:

```
export PDXTDOWNLOAD_DIRECTIVES="-j no -q attr"
```

Note

1. After you add the environment variable, log out of Linux and log back in to pick up the change.
2. You must stop and restart the **mvsprsd** daemon.

/var/pdxt/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
```

After you create the directives file, make sure that the group is **printq**. Also, make sure that the owner and group have read-write permissions:

```
-rw-rw----   1  xtadmin   12 Jun 06 13:36 pdxtdownload.directives
```

Use the Linux **chgrp** command to change the group:

```
chgrp printq pdxtdownload.directives
```

Use the **chmod** command to change the permissions:

```
chmod 660 pdxtdownload.directives
```

mvsprsd -X command option

You can use the **mvsprsd -X** command option to specify directives. The directives specified through this method apply to any data set received by that instance of the InfoPrint Manager or RICOH ProcessDirector **mvsprsd** daemon. For example:

```
mvsprsd -X "-m none"
```

You can also use the **-q** option of the InfoPrint Manager **mvsprsd** command to specify directives. Do not use both the **-X** command option and the **-q** command option at the same time.

mvsprsd -q command option

You can use the **mvsprsd -q** command option to specify directives. The directives apply to any data set received by that instance of the InfoPrint Manager or RICOH ProcessDirector **mvsprsd** daemon. For example:

```
mvsprsd -q "'ldest -m none'" -p 6001 -d /var/pdxt/download \
        -x /opt/infoprint/pdxt/bin/pdxtdownload
```

Note

When you use the **mvsprsd -q** command option, you must use multiple pairs of quotation marks. This keeps the logical destination and directives together when **mvsprsd** calls the **pdxtdownload** program. In the previous example, the outer pair of double quotation marks keeps the items together for the initial **mvsprsd** invocation. The inner pair of single quotation marks keeps the items together for the **pdxtdownload** invocation.

More than one occurrence of the **-e** download directive are cumulative. The other download directives are not. For example, if you set the **PDXTDOWNLOAD_DIRECTIVES** environment variable to **-e aioxldse** *parm1* and the **pdxtdownload.directives** file contains ***: -e "aioxldse** *parm2*", **pdxtdownload** passes both *parm1* and *parm2* to the **aioxldse** application exit.

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 or RICOH ProcessDirector **mvsprsd** daemon 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 value of the **mvsprsd -p** command option. If you are using **pdxtdownload** for Linux, the receiver log is in the directory that the **mvsprsd -d** command option specifies. . The receiver log contains information about the download process, such as the information sent from z/OS to the **mvsprsd** daemon for the job, download directives in effect, and the information that the **pdxtdownload** program passed to InfoPrint Manager or RICOH ProcessDirector. 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:

Sample download receiver log for Linux

```
5016-701 2009-11-17 09:14:17 MST (ppid 24813/pid 24819) port-6001 - receipt started
5016-711 Download arguments:
5016-712    i_inpfile = DEVL.MYTSOID0.STEPA1.STD.2009321.09133101942.PRD
5016-712    i_options = "-odatat-line -ofileformat-record -occ-yes -occtype-a -ochars-GF10 -opagedef-P1A06462
        -of-F1A10110 -ocop-001 -odatac-block -ojobn-MYTSOID0 -ous-MYTSOID -ono-BLDPDEVL -opr-NAME1 LASTNAME
        -oti-MULTI STEP Z/OS DOWNLOAD JOB FOR XT + IPPD -opa-forms-STD,class-J,destination-MYSLBOX,jobid-JOB00638,OUTGRP-FIRST
5016-712    i_queue = aiw1~HotFolderXerox

5016-721 Download directives (/var/pdxt/pdxtdownload.directives):
5016-722    d = "files"
5016-722    d = "jobs"
5016-722    l = "all"
5016-722    p = "a2m-all"
5016-722    h = "/aiw/aiw1/System/hf/pdxt"
5016-731 Command: cat JOB00638.DEVL.MYTSOID0.STEPA1.STD.2009321.09133101942.PRD.1 >> pdxtdownload.6001.cat
5016-732    rc = 0
5016-702 2009-11-17 09:14:18 MST (ppid 24813/pid 24819) port-6001 (rc 0) - receipt ended
5016-701 2009-11-17 09:14:18 MST (ppid 24869/pid 24870) port-6001 - receipt started

5016-711 Download arguments:
5016-712    i_inpfile = DEVL.MYTSOID0.STEPA2.STD.2009321.09133105850.PRD
5016-712    i_options = "-odatat-line -ofileformat-record -occ-yes -occtype-a -ochars-GF10 -opagedef-P1A06462
        -of-F1A10110 -ocop-001 -odatac-block -ojobn-MYTSOID0 -ous-MYTSOID -ono-BLDPDEVL -opr-NAME1 LASTNAME
        -oti-MULTI STEP Z/OS DOWNLOAD JOB FOR XT + IPPD -opa-forms-STD,class-J,destination-MYSLBOX,jobid-JOB00638,OUTGRP-NEXT
5016-712    i_queue = aiw1~HotFolderXerox

5016-721 Download directives (/var/pdxt/pdxtdownload.directives):
5016-722    d = "files"
5016-722    d = "jobs"
5016-722    l = "all"
5016-722    p = "a2m-all"
5016-722    h = "/aiw/aiw1/System/hf/pdxt"
5016-731 Command: cat JOB00638.DEVL.MYTSOID0.STEPA2.STD.2009321.09133105850.PRD.2 >> pdxtdownload.6001.cat
5016-732    rc = 0
5016-702 2009-11-17 09:14:20 MST (ppid 24869/pid 24870) port-6001 (rc 0) - receipt ended
5016-701 2009-11-17 09:14:20 MST (ppid 24878/pid 24879) port-6001 - receipt started

5016-711 Download arguments:
5016-712    i_inpfile = DEVL.MYTSOID0.STEPA3.STD.2009321.09133255825.PRD
5016-712    i_options = "-odatat-line -ofileformat-record -occ-yes -occtype-a -ochars-GF10 -opagedef-P1A06462
        -of-F1A10110 -ocop-001 -odatac-block -ojobn-MYTSOID0 -ous-MYTSOID -ono-BLDPDEVL -opr-NAME1 LASTNAME
        -oti-MULTI STEP Z/OS DOWNLOAD JOB FOR XT + IPPD -opa-forms-STD,class-J,destination-MYSLBOX,jobid-JOB00638,OUTGRP-NEXT
5016-712    i_queue = aiw1~HotFolderXerox

5016-721 Download directives (/var/pdxt/pdxtdownload.directives):
5016-722    d = "files"
5016-722    d = "jobs"
5016-722    l = "all"
5016-722    p = "a2m-all"
5016-722    h = "/aiw/aiw1/System/hf/pdxt"
5016-731 Command: cat JOB00638.DEVL.MYTSOID0.STEPA3.STD.2009321.09133255825.PRD.3 >> pdxtdownload.6001.cat
5016-732    rc = 0
5016-702 2009-11-17 09:14:21 MST (ppid 24878/pid 24879) port-6001 (rc 0) - receipt ended
5016-701 2009-11-17 09:14:21 MST (ppid 24887/pid 24888) port-6001 - receipt started

5016-711 Download arguments:
5016-712    i_inpfile = DEVL.MYTSOID0.STEPA4.STD.2009321.09133400711.PRD
5016-712    i_options = "-odatat-line -ofileformat-record -occ-yes -occtype-a -ochars-GF10 -opagedef-P1A06462
        -of-F1A10110 -ocop-001 -odatac-block -ojobn-MYTSOID0 -ous-MYTSOID -ono-BLDPDEVL -opr-NAME1 LASTNAME
        -oti-MULTI STEP Z/OS DOWNLOAD JOB FOR XT + IPPD -opa-forms-STD,class-J,destination-MYSLBOX,jobid-JOB00638,OUTGRP-LAST
5016-712    i_queue = aiw1~HotFolderXerox

5016-721 Download directives (/var/pdxt/pdxtdownload.directives):
5016-722    d = "files"
5016-722    d = "jobs"
5016-722    l = "all"
5016-722    p = "a2m-all"
5016-722    h = "/aiw/aiw1/System/hf/pdxt"
5016-731 Command: cat JOB00638.DEVL.MYTSOID0.STEPA4.STD.2009321.09133400711.PRD.4 >> pdxtdownload.6001.cat
5016-732    rc = 0
5016-731 Command: cp JOB00638.DEVL.MYTSOID0.STEPA4.STD.2009321.09133400711.PRD.4 /aiw/aiw1/System/hf/pdxt
5016-732    rc = 0
5016-731 Command: cp JOB00638.DEVL.MYTSOID0.STEPA1.STD.2009321.09133101942.JCL /aiw/aiw1/System/hf/pdxt
5016-732    rc = 0
5016-731 Command: cp JOB00638.DEVL.MYTSOID0.STEPA4.STD.2009321.09133400711.LST /aiw/aiw1/System/hf/pdxt
5016-732    rc = 0
5016-702 2009-11-17 09:14:23 MST (ppid 24887/pid 24888) port-6001 (rc 0) - receipt ended
```

Note

RICOH 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 that the **mvsprsd -d** command option specifies. 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 or RICOH ProcessDirector, it specifies the **dsl** file with the **pdpr -Z** command option.

  jcl

  Contains JCL parameters and print options passed from the z/OS host.

  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 **mvsprpsm.sh** shell script or ProcessDirector DownloadAFP Input Device 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 start the InfoPrint Manager **mvsprsd** daemon with the **-k** command option. If you specify this option, the **mvsprsd** daemon retains JCL files for jobs. You must manually discard these files; no mechanism exists to remove them automatically. Only specify the **–k** command option for the RICOH ProcessDirector **mvsprsd** daemon.

Related information

RICOH InfoPrint XT provides two application exits that you can use with data sets and with jobs that you send through Download for z/OS. See:

- Setting up the download data set application exit, p. 81
- Setting up the download job application exit, p. 83

9. Troubleshooting RICOH InfoPrint XT

- **Determining the RICOH InfoPrint XT code level**
- **Problem determination: The job resulted in some type of printed output**
- **Problem determination: The job resulted in no printed output**
- **Problem determination: Processing jobs through Download for z/OS**
- **Using the Job Capture Archive feature to retain data stream conversion information**
- **Using pdxtxrxindmp to dump Xerox data streams**
- **Using pdxtscrambler to hide all sensitive content in Xerox data streams that contain PII data**
- **Using the pdxtclnwork command to clean work directories**
- **Diagnostic and informational files that RICOH InfoPrint XT produces**
- **Service coordinator responsibilities**
- **Determining problem severity**
- **Placing a service call**

This chapter describes how to diagnose and correct problems when you transform Xerox jobs with RICOH InfoPrint XT for Linux. It also describes customer responsibilities for problem determination and how to place a service call to report a problem.

Determining the RICOH InfoPrint XT code level

When you place a service call to report a problem, your technical support representative may ask for the code level for your RICOH InfoPrint XT installation. RICOH InfoPrint XT provides the **pdxtversion** command to help you supply this information. The syntax of the **pdxtversion** command is:

```
pdxtversion
```

RICOH InfoPrint XT displays the product version, the code level, and the date and time when the code level was compiled. For example:

InfoPrint XT for Linux 3.4.0.0 Level *code_level compile_date compile_time*.

RICOH InfoPrint XT also displays the same product version, code level and compile date and time information in messages that it writes to these command listing and log files:

pdxtcluster.lst

pdxtcolor.lst

pdxtdownload.*portnumber***.log**

pdxtkeys.log

pdxtloadres.lst

pdxtpdl.lst

pdxtx2afp.log

Note

The compile time displayed in **pdxtpdl.lst** might vary slightly from the compile time shown in other command listing and log files.

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 RICOH InfoPrint XT error sheet.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. For installations that use InfoPrint Manager with RICOH 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 Conversion parameters for converting Xerox jobs, p. 199.

Note

Whether RICOH InfoPrint XT creates Advanced Function Presentation output for a Xerox job that has errors in the conversion parameters depends on the severity of the errors. For a description of these errors, see *InfoPrint XT: Messages, G550-20243-00,* chapters 2: *Resource utility messages: 5017-nnn X (xxx)* and 4: *Data stream converter messages: 5019-nnn X (xxx)*.

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 jobname-jobID-n
```

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 /path/jobname
```

Note

An incorrect document format value can also result in no printed output.

Did an InfoPrint Manager header page and an RICOH InfoPrint XT error sheet print?

RICOH 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 RICOH InfoPrint XT produces , p. 194 for more information.

If the RICOH 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 RICOH InfoPrint XT that you enter at a Xerox printer. The **JDL=** and **JDE=** parameters in the **x2afp.lst** section of the error sheet that RICOH InfoPrint XT produces identify the starting JDE and JDL pair that RICOH 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 Copying and loading Xerox resources, p. 91.

Make sure 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. RICOH 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. Another cause is permissions that prevent RICOH InfoPrint XT from accessing an AFP resource. 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
```

Did a RICOH ProcessDirector header page, a RICOH ProcessDirector trailer page, or a PSF error page print?

Consult RICOH ProcessDirector publications to identify the cause of the problem: RICOH ProcessDirector, p. 437.

Were none of the previous items true?

If none of the previous items were true, continue with combined InfoPrint Manager and RICOH InfoPrint XT diagnostic tasks. See **Problem determination: The job resulted in no printed output** below.

Problem determination: The job resulted in no printed output

Note

See Problem determination: Processing jobs through Download for z/OS, p. 192 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:

If you submit a Xerox job and you receive no printed output, including no header page, check these items:

Do RICOH InfoPrint XT commands return to the Linux prompt without issuing any messages?

Make sure that the value of the **PATH** environment variable is valid and contains no spaces or other incorrect characters. Make sure that the value of **PATH** includes **/opt/infoprint/pdxt/local:/opt/infoprint/pdxt/bin**.

Did you receive one or more "Unable to open message catalog" messages?

Make sure that the **en_US** locale is installed on your system.

Also, make sure that permissions and ownership are correct for the **/opt/infoprint/pdxt/nls** directory and all its contents.

Did you receive message 5016-800 indicating a problem with the license key?

Make sure that the license key file, **license.key**, is installed in the correct location: **/opt/infoprint/pdxt/license/**. Also, make sure that **/opt/infoprint/pdxt/license/license.key** has the same number of bytes as the original license key file you received from Ricoh. If possible, perform a binary comparison between **/opt/infoprint/pdxt/license/license.key** and the original license

key file you received from Ricoh. If there are differences, use binary transmission methods to ensure that **/opt/infoprint/pdxt/license/license.key** is identical to the original license file.

Did the application input exit, aioxlxie, run as expected?

When the data format of an input file requires the application input exit, **aioxlxie**, but the exit is not invoked, or if it is invoked with an incorrect data format parameter, the data stream converter might fail with a variety of conditions such as an **ONCODE**, metacode conversion errors, record format errors, etc.

If the failing job invoked **aioxlxie** from the **pdxtx2afp** command, examine **pdxtx2afp.log** to determine whether there is an entry (message 5016-510) for **aioxlxie** in the Command sequence (message 5016-509).

If there is a Command sequence entry for **aioxlxie**, verify that the exit was invoked correctly:

1. Verify that the **aioxlxie -e** data format parameter matches the data format of the input file.
2. If you specified any of the documented **aioxlxie -e** data format parameters other than **NONE**, verify that you also specified the **xrecfm=variable** data stream conversion parameter.
3. Verify that the carriage control type you specified in the **xcc** data stream conversion parameter matches the carriage control type in the input file, or the type generated by **aioxlxie**.

If there is no Command sequence entry for **aioxlxie**, verify that the exit is accessible:

1. Determine whether **aioxlxie** is in **/opt/infoprint/pdxt/local**.
2. Verify that the owner of **aioxlxie** is **root**, the group is **printq** and that it has 770 permissions.
3. Determine whether **PATH** environment variable for the user ID running the failing job includes **/opt/infoprint/pdxt/local:/opt/infoprint/pdxt/bin**.
4. While logged on as the user ID running the failing job, navigate to an unrelated directory, such as **/tmp**, and issue

   ```
   which aioxlxie
   ```

   The response should be:

   ```
   /opt/infoprint/pdxt/local/aioxlxie
   ```

If the failing job invoked **aioxlxie** separately from the **pdxtx2afp** command, such as in an RPD step, you can use the problem determination steps listed above to determine whether **aioxlxie** was invoked correctly, and whether it is accessible.

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 this 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
```

returns information that is similar to this:

```
                                  Current  Intervening  Destination  Destinations
Job  ID              Name         State    Jobs         Requested    Assigned
---  --------------  --------     -------  -----------  -----------  ------------
51   skye:289100001  jobname      held     1            skye-ld

Document            Document     File
Number    Format    State        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 the *InfoPrint Manager: Reference*, S550-1052.

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 RICOH InfoPrint XT configurable transform object exist in the InfoPrint Manager server?

InfoPrint Manager does not automatically provide the RICOH InfoPrint XT configurable transform object. You must explicitly create the transform object during RICOH InfoPrint XT installation. See Creating the RICOH InfoPrint XT configurable transform, p. 45.

Is the actual destination set up correctly for use with RICOH 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
                                        ppml
                                        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, p. 46.

Is the PATH environment variable set correctly?

The **PATH** environment variable must include the path to the RICOH InfoPrint XT executable software. Also, you must start the InfoPrint Manager or RICOH ProcessDirector server with this path in effect. You can enter the **which** command to determine if the **PATH** environment variable includes the directories for the RICOH InfoPrint XT executable software (see Entering commands that this publication describes, p. 9):

```
which pdxtx2afp
```

If the **PATH** is correct, Linux displays information that is similar to this:

```
/opt/infoprint/pdxt/bin/pdxtx2afp
```

If Linux only returns the command prompt, see Setting environment variables, p. 55.

Next, check the InfoPrint Manager error log to determine if InfoPrint Manager has access to the RICOH InfoPrint XT executable software. Review the InfoPrint Manager server error log and check for messages that are similar to these:

```
A 04/22/09 09:23:20 [1b22 skye] 5010-341
  Job 48 (skye:1098400000, ./103355000) is created.
A 04/22/09 09:23:20 [1c23 skye] 5010-580
  Job ./103355000 (skye:1098400000) is scheduled to destination prt4.
A 04/22/09 09:23:20 [1b24 skye,prt4] 5010-279
```

```
  Started processing job ./103355000 (1098400000).
A 04/22/09 09:23:20 [1c23 skye,prt4] 5010-341
  Job 48 (skye:1098400000, ./103355000) is created.
E 04/22/07 09:23:21 [1b24 skye,prt4]
     /bin/ksh[10]: pdxtx2afp: not found.
E 04/22/07 09:23:21 [1b24 skye,prt4] 5010-631
  System function IPMXFORM returned error number 127.
A 04/22/09 09:23:21 [1b24 skye,prt4] 5010-280
  Finished processing job ./103355000 (1098400000).
A 04/22/09 09:23:21 [f10 skye,prt4] 5010-280
  Finished processing job ./103355000 (1098400000).
```

The highlighted lines indicate that InfoPrint Manager could not access the RICOH InfoPrint XT executable software.

Shut down the InfoPrint Manager server and restart it.

```
pdshutdown -c server server

startsrv server
```

If RICOH ProcessDirector is installed, check the RICOH ProcessDirector error log to determine if RICOH ProcessDirector has access to the RICOH InfoPrint XT executable software. Review the RICOH ProcessDirector server error log and check for messages that are similar to these:

```
10000115,'2010-03-30 08:45:33.618+0300',
          StepAdapterManager,S,AIWP0003I,"Job 10000115: moved from
           Receive.XeroxJobType.CopyToFolder.Processing to
          Prepare.XeroxJobType.RunExternalProgram.Queued"

10000115,'2010-03-30 08:45:33.629+0300',
          StepAdapterManager,I,AIWP0108I,
          "Step XeroxJobType.RunExternalProgram
          was started on server System."

10000115,'2010-03-30 08:45:33.630+0300',
          StepAdapterManager,S,AIWP0003I,"Job 10000115: moved from
               Prepare.XeroxJobType.RunExternalProgram.Queued to
               Prepare.XeroxJobType.RunExternalProgram.Processing"

10000115,'2010-03-30 08:45:33.666+0300',
         RunExternalProgram,I,AIWI0017I,
         "/bin/bash: pdxtx2afp: command not found"

10000115,'2010-03-30 08:45:33.667+0300',
         RunExternalProgram,E,AIWI6073E,"External step export
         PSFPATH=/aiw/aiw1/resources:${PSFPATH};pdxtx2afp -i
         /aiw/aiw1/spool/default/10000115/10000115.print.unknown -o
         /aiw/aiw1/spool/default/10000115/tmp/10000115.print.afp -p
         -opa=class=A,destination=,forms=STD,
         jobid=,jobname=PDXTTEST -t
         "-k1" finished with a return code 127,
         which is defined as an error."

10000115,'2010-03-30 08:45:33.674+0300',
        StepAdapterManager,S,AIWP0003I,"Job 10000115: moved from
        Prepare.XeroxJobType.RunExternalProgram.Processing to
        Prepare.XeroxJobType.RunExternalProgram.Error"
```

Shut down the RICOH ProcessDirector server and restart it. You can issue these commands to stop and restart an RPD server:

```
stopaiw
```

```
startaiw
```

Are any file systems on the Linux system full?

Sufficient space must be available for RICOH ProcessDirector to process the job. You can issue this command to determine if any of the Linux file systems are 100% full or approaching 100% full:

```
df
```

Make sure that the values in the **Use%** column are not 100%. If any file system is full, you must either extend the file system or delete files to make space available.

Is the job running slowly, or does the job appear to be hung?

While the job is running, you can examine the **x2afp.lst** file in the job directory to verify whether RICOH InfoPrint XT has issued any **5019-040** messages to indicate the progress of data stream conversion. After job conversion is complete, the **5019-040** messages issued for the job appear in the **pdxtx2afp.log** file in the job directory. The **xpginterval** parameter controls how frequently RICOH InfoPrint XT issues **5019-040** messages.

The job might also contain a large number of inline graphic images. The **xckdupnlimg** parameter specifies whether RICOH InfoPrint XT checks inline images to prevent duplicate image processing when it converts online jobs. Specifying **xckdupnlimg=yes** can reduce execution time for jobs that contain many duplicate inline images. If you specify **xckdupnlimg=yes**, RICOH InfoPrint XT issues message **5019-263** at the end of the job to indicate totals for the all inline graphic images in the input data stream, the number of unique inline graphic images, and the number of duplicate inline graphic images.

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 no printed output, p. 187.

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, p. 164. 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 or RICOH ProcessDirector system. **PORTNUM** must be the same as the port number that you specified for the value that the **-p** command option of the InfoPrint Manager or RICOH ProcessDirector **mvsprsd** daemon uses.
- 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 problem related to 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 RICOH ProcessDirector mvsprsd daemon cause the job to remain on z/OS?

On the InfoPrint Manager or RICOH ProcessDirector system, the absence of the **mvsprsd** daemon process or incorrect starting options can cause this. See Starting the InfoPrint Manager mvsprsd daemon, p. 168. When the daemon is running, you can use this command to check the options that were used when the daemon started:

```
ps -ef | grep mvsprsd
```

Linux displays output that is similar to this:

```
aiw1  5780  5755  0 09:57 pts/0    00:00:00 /bin/grep -E -i mvsprsd
aiw1  1726  1 0 Jan27 ? 00:00:00 mvsprsd -p 6001 -q aiw1~HotFolderXerox
-d /var/pdxt/download -k -n 1 -x /opt/infoprint/pdxt/bin/pdxtdownload
```

Ignore the line that ends with **grep mvsprsd**. The other line of this output example shows the invocation. The line begins with **root**, because the root user starts the daemon. The value of the **-p** command option must match that of **PORTNUM** in the routing-control data set.Ignore the line that ends with grep **-E -i mvsprsd**. The other line of this output example shows the invocation.

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 is typically **/var/pd/***servername***/error.log**. 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, p. 187.

Does the working directory of the InfoPrint Manager or RICOH ProcessDirector mvsprsd daemon contain any .LST, .PRD or .JCL files for the job?

The value after the **-d** command option of the **mvsprsd** invocation specifies the working directory for the daemon. Check this 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 daemon had a problem when it tried to run the **pdxtdownload** program. Check these items:

- **-x /opt/infoprint/pdxt/bin/pdxtdownload** is a required command option of **mvsprsd**. Make sure that the path and the file name for the **pdxtdownload** program are specified correctly.
- Make sure that **/opt/infoprint/pdxt/bin/pdxtdownload** exists and that it has executable permission.

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, p. 174, and Receiver log, p. 181. Do not use download directive **-l none** because this prevents RICOH InfoPrint XT from creating the receiver log. To set or change download directives, see Enabling download directives, p. 179.

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.

Using the Job Capture Archive feature to retain data stream conversion information

After you place a service call, the technical support representative might ask you to capture information from the RICOH InfoPrint XT system. RICOH InfoPrint XT provides the –**a** *jobcapturearchive* parameter of the **pdxtx2afp** command or the **-c** *jobcapturearchive* transform directive that you can use to make an image of the working directory for the last job that was converted 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. See Using the pdxtx2afp command to process Xerox jobs, p. 154. The Linux user name from which you enter the **pdxtx2afp** command must be a member of the **printq** group.

Using pdxtxrxindmp to dump Xerox data streams

RICOH InfoPrint XT provides a Xerox data stream dumper (**pdxtxrxindmp**) for displaying the contents of Xerox jobs in readable format. The data stream records are printed in EBCDIC, ASCII or combined format (ASCII, EBCDIC and hexadecimal). The data stream can be extended in the future by printing the Metacode records in enhanced readable format. Also, a "Reconstruct Xerox data stream from changed dump file" feature can be implemented. The Xerox data stream dumper is under construction and contains a self-explaining interface for the user.

Using pdxtscrambler to hide all sensitive content in Xerox data streams that contain PII data

After you place a service call, the technical support representative might ask you to capture information from the RICOH InfoPrint XT system. For the Xerox data streams that contain PII data, RICOH InfoPrint XT is providing the **pdxtscrambler** command that will create altered versions of PII Xerox LCDS data streams, insuring anonymity of sensitive data. The data stream scrambler speeds up the troubleshooting and code fixing process for PII data stream issues by reducing the need for Red Zone involvement. It only covers LCDS and will be enhanced to cover Metacode. The tool contains a self-explaining interface for the user.

Using the pdxtclnwork command to clean work directories

RICOH 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 RICOH 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.

Diagnostic and informational files that RICOH InfoPrint XT produces

If RICOH 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 RICOH 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 RICOH InfoPrint XT produces.

If errors exist in the output that RICOH InfoPrint XT produced, it records information about the failure. To determine the exact cause of the problem, you can use the listing files that RICOH InfoPrint XT produces.

RICOH InfoPrint XT creates the listing file **pdxtx2afp.log** in the **/var/pdxt/jobs/***/jobname-jobID-n* subdirectory.

RICOH InfoPrint XT also creates the **x2afp.lst** listing file which is included in the **pdxtx2afp.log** log file.

Depending on whether you have active application exits, RICOH InfoPrint XT can also generate these files:

- **aioxlxbe.lst**
- **aioxlxie.lst**
- **aioxlxoe.lst**
- **aioxlxte.lst**

If you set the **PDXTWORKDIR** environment variable, as described by Controlling the working directory that RICOH InfoPrint XT uses for variable data (PDXTWORKDIR), p. 56, RICOH InfoPrint XT writes the log file and listing files to the **$PDXTWORKDIR/jobs/***jobname-jobID-n* directory.

Note

The error sheets that RICOH InfoPrint XT produces include the contents of the various listing files.

pdxtx2afp.log file

This file contains sections that list the arguments, any transform directives, the commands that RICOH InfoPrint XT issued, and the return codes from those commands. It also includes the number of impressions (pages) of AFP output that RICOH InfoPrint XT produced. This is an example of the information in the **pdxtx2afp.log** file:

```
InfoPrint XT for Linux 3.4.0.0 Level US38093 Aug 22 2017 10:32:59.

5016-501 2009-08-04 14:47:47 MDT (pid 31448) - transform started.

5016-503 Transform arguments (pdxtx2afp):
5016-504  -i "/var/pd/ballachulish/pdprw75iae"
5016-504  -o "/var/pd/ballachulish/pdprw75iae_xfm1"
5016-504  -e "/var/pd/ballachulish/pdprw75iae_xfm1_err"
5016-504  -U "/var/pd/ballachulish/pdprw75iae_update"
5016-504  -q "prtxt-ad"
5016-504  -p ""
5016-504  -d "ASCII"
5016-504  -# "ballachulish:4881900001"
5016-504  -D "1"
5016-504  -s "ballachulish"
5016-504  -x "xjdl=pdxton xjde=strton xcc=a
           xrecfm=v xclb=none xafprc=4"
5016-504  -r "/var/pdxt/resources/pdxttest"
5016-504  -P ""

5016-505 Transform directives (/var/pdxt/pdxtx2afp.directives):
```

```
5016-506    -x "xclb=none"

5016-509 Command Sequence:
5016-510 1) aioxlxie -e '' -j 'ballachulish:4881900001'
            -q 'prtxt-ad' -p '' -x 'xjdl=pdxton xjde=strton
            xcc=a xrecfm=v xclb=none xafprc=4
            respath=/var/pdxt/resources/pdxttest:/usr/lpp/afpfonts:
            xfmtlib=
            /var/pdxt/resources/pdxttest/metrics:
            /usr/lpp/afpfonts/metrics:
            /opt/infoprint/pdxt/resources
            xclb=none xcaobs=yes
            xonepass=no
            jobname=ballachulish:4881900001' 2> aioxlxie.lst
            < '/var/pd/ballachulish/pdprw75iae'
5016-510 2) x2afp xjdl=pdxton xjde=strton xcc=a xrecfm=v xclb=none
            xafprc=4
            respath=/var/pdxt/resources/pdxttest:/usr/lpp/afpfonts:
            xfmtlib=/var/pdxt/resources/pdxttest/metrics:
            /usr/lpp/afpfonts/metrics:/opt/infoprint/pdxt/resources
            xclb=none xcaobs=yes xonepass=no jobname=ballachulish:
            4881900001 x2afp.fifo 2> x2afp.lst
5016-510 3) aioxcsfi -c3 -f1 2> aioxcsfi.lst 3> aioxcsfi.pgs >
            '/var/pd/ballachulish/pdprw75iae_xfm1'

5016-511 Return codes:
5016-512    1) 0 (pid 23010)
5016-512    2) 0 (pid 27106)
5016-512    3) 0 (pid 14104)

5016-513 Impressions (pages): 4
5016-502 2009-08-04 14:47:49 MDT (rc 0) - transform ended.
```

The different sections of the **pdxtx2afp.log** file contain these types of information:

5016-503 Transform arguments (pdxtx2afp):

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 RICOH 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=pdxton xjde=strton xcc=a xrecfm=v xclb=none
          xafprc=4"
```

5016-505 Transform directives (/var/pdxt/pdxtx2afp.directives):

Shows the entries that the transform directives file contains. This section is present only if an active directives file exists; see Using transform directives, p. 65.

If you specify transform directives through the **PDXTX2AFP_DIRECTIVES** environment variable, RICOH InfoPrint XT adds a section that shows which directives the environment variable specifies.

5016-509 Command Sequence:

Lists the commands, in order, that RICOH 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, in the same order.

5016-513 Impressions (pages):

If RICOH InfoPrint XT generated AFP output for the job, this message lists the number of pages that RICOH InfoPrint XT produced.

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. RICOH 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)
```

aioxlxbe.lst file

If you use the **aioxlxbe** transform begin application exit, this listing file contains the standard error output that the application exit writes. See Setting up a transform begin application exit, p. 72.

aioxlxie.lst file

If you use the **aioxlxie** transform input application exit, this listing file contains the standard error output that the application exit writes. See Setting up a transform input application exit, p. 74.

aioxlxoe.lst file

If you use the **aioxlxoe** transform output application exit, this listing file contains the standard error output that the application exit writes. See Setting up a transform output application exit, p. 77.

aioxlxte.lst file

If you use the **aioxlxte** transform end application exit, this listing file contains the standard error output that the application exit writes. See Setting up a transform end application exit, p. 79.

Service coordinator responsibilities

It is your responsibility to provide a service coordinator for RICOH InfoPrint XT. The service coordinator must be a knowledgeable Linux 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 the RICOH supplies. The service coordinator tests all fixes before releasing them to their production environment.

Determining problem severity

RICOH supplies fixes for all valid defects in RICOH 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, visit our home page: http://www.ricoh-usa.com. Make sure that you have the customer number for your account available. The program identification (PID) for InfoPrint XT is **5765-XTA**.

Only certain individuals from your account have authorization to open problems. You control who is on the authorization list. Typically, support personnel, such as the RICOH InfoPrint XT development group, do not have authorization to open calls on your account.

For more information about Ricoh software support, see the Software Support Handbook.

10. Conversion parameters for Xerox jobs

• **Conversion parameters for converting Xerox Jobs**

Conversion parameters for converting Xerox Jobs

This list describes the conversion parameters for Xerox jobs:

[xaccount = yes | no]

Specifies whether RICOH InfoPrint XT prints a Xerox-style accounting page for the job. The default is that RICOH 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, RICOH 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. RICOH InfoPrint XT uses this function for the shading patterns in data streams and forms. The default is that RICOH InfoPrint XT assumes the printer supports the IOCA replicate-and-trim function.

Note

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 RICOH InfoPrint XT processes jobs that contain FILE DJDE commands.

[xafprc = 12 | 0 through 16]

Specifies the largest return code that lets RICOH InfoPrint XT generate AFP output. If you do not specify this parameter, the default is **12**. RICOH 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* **|** *scan_value:dot_value* **]**

Controls how RICOH 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. If you only specify *dot_value*, precede it with a colon (:). If you specify both *scan_value* and *dot_value*, separate them 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, RICOH InfoPrint XT uses a default of **0** for the omitted value.

Note

1. RICOH 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. RICOH InfoPrint XT does not support the TEST parameter of the Xerox ALIGN command.
3. See the **xhonorinvert** conversion parameter and the **xinvertalign** conversion parameter. These parameters affect how RICOH InfoPrint XT aligns inverted output.

[xbinerror ignore | stop | continue]

The **xbinerror** parameter controls printing when the wrong media is loaded on the printer.

The **xbinerror** parameter has these options:

ignore

RICOH InfoPrint XT does not include a media error instruction in the inline form definition. This is the default

stop

RICOH InfoPrint XT includes a media error instruction in the inline form definition. If the specified input media is not found when the job is printed, printing stops and the job is held in a state from which you can resubmit it.

continue

RICOH InfoPrint XT includes a media error instruction in the inline form definition. If the specified input media is not found when the job is printed, printing continues using the printer default input media.

[xcaobs = yes | no]

Specifies whether RICOH InfoPrint XT collects accounting observations while converting Xerox data streams.

yes

RICOH InfoPrint XT collects accounting observations if the transform accounting application exit **aioxlxae** is in the path. This is the default.

no

RICOH InfoPrint XT does not collect accounting observations.

Note

For more information about the **aioxlxae** exit and accounting observations, see Setting up a transform accounting application exit, p. 69.

[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, RICOH InfoPrint XT uses the carriage control definitions from the Job Descriptor Library (JDL). RICOH 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.

Note

1. If you use the **DCB=RECFM** parameter to specify the type of carriage control in the job control language (JCL) for a z/OS job, 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 RICOH InfoPrint XT.
2. If you use Download for z/OS to send jobs to RICOH InfoPrint XT and the jobs contain both ANSI and machine code carriage controls, you can use the **-p** download directive. With the directive, RICOH 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, p. 174.
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**, RICOH 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 carriage-control processing component. This can cause the AFP output that RICOH InfoPrint XT generates to be wrong. For example, if the online job contains both ANSI and machine code carriage controls, the **xpcctest=yes** carriage control test might produce an incorrect result. For more information, see xpcctest, p. 212.

[xckdupmsg = yes | no]

Specifies whether RICOH InfoPrint XT detects and suppresses duplicate data stream conversion messages. When you specify **xckdupmsg=yes**, RICOH InfoPrint XT does not issue 5019 messages that were issued previously for the job. This can reduce the size of **x2afp.lst** and **pdxtx2afp.log**. For example, if RICOH InfoPrint XT issues many duplicate occurrences of message **5019-220** (interpret FEED=*tray_name* as FEED=MAIN) for a particular job, specifying **xckdupmsg=yes** causes RICOH InfoPrint XT to issue this message only once. The default is **xckdupmsg=no**.

Note

1. This parameter only affects messages that RICOH InfoPrint XT writes to **x2afp.lst** and **pdxtx2afp.log**. It does not affect messages that RICOH InfoPrint XT writes to the DJDE report.
2. This parameter only affects data stream converter messages (**5019-*nnn* X**) whose severity is **I, W, E** or **S**. It does not affect messages whose severity is **U**.
3. This parameter does not affect message **5019-040** (number of pages that have completed conversion), or certain other messages that are specific to the Xerox reports in the job.
4. RICOH InfoPrint XT examines message numbers, text and variable data to determine whether messages are duplicates.
5. If you specify **xckdupmsg=yes** and any of the **5019-*nnn* X** messages that RICOH InfoPrint XT issues are important to diagnosing problems with the job, ensure that your diagnosis considers every occurrence of the data or DJDEs that caused RICOH InfoPrint XT to issue the message. For example, if RICOH InfoPrint XT only issues message **5019-220** once, ensure that your diagnosis of the FEED issue that this message identifies considers all the occurrences of the FEED DJDE in the job.

[xckdupnlimg = yes | no]

Specifies whether RICOH InfoPrint XT checks inline images to prevent duplicate image processing when it converts online jobs. When you specify **xckdupnlimg=yes**, RICOH InfoPrint XT can reduce its execution time for jobs that contain many duplicate inline images. The default is **xckdupnlimg=no**.

Note

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. **xckdupnlimg** does not apply to offline jobs.

[xclb = clustr | *clusterlib_name* | none]

Specifies the name of the cluster database in use, or specifies that no cluster database is in use. If you do not specify this parameter, the default is **clustr** for the cluster database name.

Note

1. If the job uses stocksets and you print the job on a continuous-forms printer, specify **xclb=none**. This causes RICOH 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, RICOH InfoPrint XT uses the value for the current tray. This matches the operation of a Xerox printer.
3. The **pdxtcluster** command can help you customize your Xerox cluster databases. See Using the pdxtcluster command to create and modify cluster database resources, p. 118.

[xcmt2nop = yes | no]

Specifies whether RICOH InfoPrint XT generates No Operation (NOP) structured fields for the text of C DJDEs in the job. If you specify **xcmt2nop=yes**, RICOH 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 **XRXCDJDE** keyword in Working with RICOH InfoPrint XT AFP structured fields, p. 84.

Note

1. 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, RICOH 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.
2. Each C DJDE text string that is processed by **xcmt2nop=yes** must be all ASCII or all EBCDIC alphanumeric or blank characters and must not contain any special characters.

[xconsecutivedjde = ignore | process]

Specifies whether RICOH InfoPrint XT ignores or processes consecutive DJDEs.

ignore

RICOH InfoPrint XT ignores extra DJDE records directly following a previously terminated DJDE packet. This is the default.

process

RICOH InfoPrint XT processes extra DJDE records directly following a previously terminated DJDE packet.

[xconvert =yes | no]

Specifies whether RICOH InfoPrint XT converts the job and produces AFP output. If you specify **xconvert=no**, RICOH InfoPrint XT lists the resources that the job requires. The default is that RICOH 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 RICOH InfoPrint XT derives the medium map names that it uses in the inline form definition for a job. The default is that RICOH 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, RICOH InfoPrint XT creates medium map names in a format that describes the contents of the medium map. For information about the format that RICOH InfoPrint XT uses for content-sensitive medium map names, see Working with content-sensitive medium map names, p. 88.

[xdecrypt auto | all | none]

Controls font decryption during data stream conversion when RICOH InfoPrint XT loads Xerox fonts that FILE DJDEs identify. You can use one of these values:

auto

RICOH InfoPrint XT automatically determines whether each font that it loads from a FILE DJDE command requires decryption. This is the default.

all

RICOH InfoPrint XT runs its decryption utility for every font that it loads from a FILE DJDE command. You can use this option to force RICOH InfoPrint XT to decrypt fonts when it cannot automatically detect that the fonts are encrypted.

none

RICOH InfoPrint XT does not run its decryption utility for any of the fonts that it loads from a FILE DJDE command. You can use this option to prevent RICOH InfoPrint XT from attempting to decrypt when it cannot automatically detect that the fonts are not encrypted.

[xdeblock = yes | no]

Specifies whether RICOH InfoPrint XT deblocks records in offline jobs during conversion, based on the starting JDE. RICOH InfoPrint XT ignores this parameter for online jobs. If you do not specify this parameter, RICOH InfoPrint XT does not deblock records.

[xhonorcolor yes | no]

Specifies whether RICOH InfoPrint XT honors Xerox highlight color commands during data stream conversion.

If you specify **xhonorcolor =yes**, RICOH InfoPrint XT processes highlight color commands that it finds in the job data stream. If you specify **xhonorcolor = no**, RICOH InfoPrint XT does not process highlight color commands. This is the default.

[xhonorfcb2 = yes | no]

Specifies whether RICOH 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, RICOH InfoPrint XT processes FCBs that it finds in the job data stream. If the JDL specifies FCB=IGNORE, RICOH InfoPrint XT ignores the FCBs. If you specify **xhonorfcb2=no**, or if you omit this parameter, RICOH InfoPrint XT does not process FCBs, regardless of whether the JDL specifies FCB=PROCESS or FCB=IGNORE.

[xhonorinvert = yes | no]

Specifies whether RICOH InfoPrint XT honors INVERT commands that JDLs or DJDEs for the job specify. If you specify **xhonorinvert=yes**, RICOH InfoPrint XT processes INVERT commands that it finds in the job data stream. If you specify **xhonorinvert=no**, RICOH InfoPrint XT does not process INVERT commands. If you do not specify this parameter, the default is **no**.

Note

See the **xalign** conversion parameter and the **xinvertalign** conversion parameter for more information. If you specify **xhonorinvert=no** or **xinvertalign=no**, RICOH InfoPrint XT aligns all output pages in the same direction.

[xhonorshift = yes | no]

Specifies whether RICOH InfoPrint XT honors SHIFT and XSHIFT commands that JDLs or DJDEs for the job specify. If you specify **xhonorshift=yes**, RICOH InfoPrint XT processes SHIFT and XSHIFT commands that it finds in the job data stream. If you specify **xhonorshift=no**, RICOH 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 SHIFT and XSHIFT JDL and DJDE commands, p. 20, for more information.

[xhonorstaple = yes | no]

Specifies whether RICOH 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 RICOH InfoPrint XT ignores stapling commands. See the descriptions of **xstaplemax**, **xstapleorient**, and **xstaplesysgen** on pages 272–273. For more information about stapling restrictions, see Stapling support, p. 21.

[xinlr = all:cs:cp:cf:pseg:ovly:inlr]

Specifies the printable AFP resources that RICOH 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

RICOH 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

RICOH InfoPrint XT embeds all AFP character sets that the job requires in the AFP data stream.

cp

RICOH InfoPrint XT embeds all AFP code pages that the job requires in the AFP data stream.

cf

RICOH InfoPrint XT embeds all AFP coded fonts that the job requires in the AFP data stream.

pseg

RICOH InfoPrint XT embeds all AFP page segments that the job requires in the AFP data stream.

ovly

RICOH InfoPrint XT embeds all AFP overlays that the job requires in the AFP data stream.

inlr

RICOH 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 RICOH InfoPrint XT only embeds temporary resources that it loaded through FILE DJDE commands with the **D** storage parameter.

By default, RICOH InfoPrint XT does not imbed any permanent resources inline in the AFP data stream. If you include the **xinlr** parameter without a value, RICOH InfoPrint XT issues an error message. For detailed information on how RICOH InfoPrint XT processes FILE DJDE commands, see Including resource-load messages for FILE DJDE jobs, p. 160

[xinvertalign = no | yes]

Controls how RICOH 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, RICOH 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 and the **xalign** conversion parameter for more information.

[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 the **xrecfm=fixed** parameter, the valid range is **1** through **24576**. If you do not specify the **xlrecl** parameter with the **xrecfm=fixed** parameter, the default is **80**.

If you specify **xrecfm=variable**, the valid range is **1** through **24576**. However, InfoPrint XT derives the record length from the 2-byte length field at the beginning of each record and does not use the **xlrecl** value.

[xmediatypes none | *blank_sub:type1:type2:type3:type4* **]**

The **xmediatypes** parameter allows you to associate Xerox input tray numbers with MO:DCA media types or component IDs. RICOH InfoPrint XT includes the media types or component IDs in the medium maps of the inline form definition that RICOH InfoPrint XT creates during data stream conversion.

none

RICOH InfoPrint XT does not specify media types in the inline form definition. This is the default.

blank_sub:type1:type2:type3:type4

RICOH InfoPrint XT specifies MO:DCA media types in the inline form definition that it creates.

Here are the usage guidelines for the MO:DCA media types:

- You can specify up to four media type identifiers. The identifiers can be media names or component IDs.
- Media names must be from 1 to 12 bytes long. RICOH InfoPrint XT validates media names using a subset of IBM code page 500, character set 640 (plus space character). This subset includes:

  uppercase A-Z

  lowercase a-z

  0 – 9

  blank

  period (.)

  special characters @ % * - _ = + , / ?
- Media names that you specify in the **xmediatypes** parameter should not contain single quotation marks or double quotation marks. Media names cannot contain colons because colons are used to delimit media type values in the parameter.
- If a media name contains embedded blanks, you must replace the blanks with the character you specify as the *blank_sub* value. The *blank_sub* value can be any of these special characters: @ % * - _ = + , / ?
- If you omit the *blank_sub* value, the default is the underscore character (_). RICOH InfoPrint XT internally converts all occurrences of the *blank_sub* value in media names to

blanks. For example, if the *blank_sub* value is the underscore character, RICOH InfoPrint XT matches ‘210x340_MED’ to the registered MO:DCA media name ‘210x340 MED’.

- Media names are case-sensitive. For example, if you specify the underscore character as the *blank_sub* value, RICOH InfoPrint XT recognizes ‘210x340_MED’ as the registered MO:DCA media name ‘210x340 MED’, but it processes ‘210x340_med’ as user-defined, non-registered media name ‘210x340 med'.
- Component IDs must be integers in the range 0 – 268,435,455. RICOH InfoPrint XT assumes that non-numeric media types are media names.
- If you enclose a numeric media type in braces, {}, RICOH InfoPrint XT interprets the numeric value as a media type name, rather than as a component ID. Numeric media type names enclosed in braces must be from 1 to 12 bytes long.
- Separate the media type identifiers with colons. The identifiers are positional: RICOH InfoPrint XT substitutes *type1* for tray 1, *type2* for tray 2, and so on. If you omit any of the media type identifiers, RICOH InfoPrint XT uses the tray number instead.
- RICOH InfoPrint XT searches the MO:DCA media types registry for entries that match the media names or component IDs that you specify. RICOH InfoPrint XT processes any media names or component IDs that are not found in the registry as user-defined.
- You can specify the **xmediatypes** parameter twice in one `pdxtx2afp` command, associating a maximum of 8 tray numbers and media type identifiers.

These are examples of values you can specify:

```
xmediatypes=@:ISO@A4:50::MY@MEDIA
xmediatypes=*:8x13*MED:13000:LEDGER
```

Xerox tray numbers	Media type substitutions in AFP output
1	Registered MO:DCA media name ‘ISO A4' (component ID 0)
2	Registered MO:DCA component ID 50 (media name LETTER)
3	Tray 3, no substitution
4	User defined media name ‘MY MEDIA'
5	Registered MO:DCA media name ‘8x13 MED' (component ID 163)
6	User defined component ID 13000
7	Registered MO:DCA media name LEDGER (component ID 67)
8	Tray 8, no substitution

```
xmediatypes=-:BLUE-MED:GREEN-STOCK:LETTER
xmediatypes=:MY_PAPER:{65432}:8x13_MED:69
```

Xerox tray numbers	Media type substitutions in AFP output
1	User defined media name ‘BLUE MED'
2	User defined media name ‘GREEN STOCK'
3	Registered MO:DCA media name LETTER (component ID 50)

Xerox tray numbers	Media type substitutions in AFP output
4	Tray 4, no substitution
5	User defined media name 'MY PAPER'
6	User defined media name '65432'
7	Registered MO:DCA media name '8x13 MED' (component ID 163)
8	Registered MO:DCA component ID 69 (media name STATEMNT)

[xmicrfont = none | all | xerox | xerox+*font1*:*font2*:*font3* | **xerox-***font1*:*font2*:*font3* | *font1*:*font2*:*font3*]

Specifies whether RICOH 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

RICOH 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

RICOH InfoPrint XT generates AFP MICR fonts for all the Xerox fonts that it loads from FILE DJDE commands in the job.

xerox

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

xerox+*font1*:*font2*:*font3*

RICOH 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*

RICOH 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*

RICOH 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. RICOH 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 | legal | 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. If you do not specify this parameter, RICOH InfoPrint XT uses a default of **letter** when it processes FILE DJDE jobs that do not explicitly specify paper sizes.

Note

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 RICOH InfoPrint XT processes jobs that contain FILE DJDE commands.

[xpattern_set = 300-1 | 300-2]

Specifies the type of shading patterns that RICOH 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 97*xx*, 4*x*50, and 4*x*90 printers use. This is the default. **300-2** specifies the patterns that Xerox 4*x*35 printers use.

Note

The value of this attribute affects how RICOH InfoPrint XT processes jobs that contain FILE DJDE commands.

[xpcctest = yes | no]

Specifies whether RICOH InfoPrint XT automatically tests the online Xerox data stream to verify whether the carriage controls are ANSI or machine code. RICOH InfoPrint XT passes the type of carriage control to its online 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 RICOH InfoPrint XT determines that the carriage controls are different, it ignores the value of the **xcc** conversion parameter and uses the carriage control type that it found. **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 RICOH 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, RICOH InfoPrint XT provides the **-p** download directive. By using the **-p** download directive, RICOH 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**, RICOH InfoPrint XT reads the first few records that have the converted ANSI carriage controls. Because all carriage controls are now machine code, it uses a carriage control type of machine.

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 RICOH 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 uses a value of ANSI. The AFP output that RICOH InfoPrint XT generates is not correct. In this case, you can use **xpcctest=no**. This prevents RICOH InfoPrint XT from verifying the carriage controls in the first few records of the job, and causes it to use the value of the **xcc** parameter.

In some cases, specifying **xpcctest=no** might not produce correct output because of the particular combination of ANSI and machine code carriage controls in the job data. In these cases, you must correct your application so that it specifies either ANSI or machine code carriage controls throughout the job data that it generates.

[xpginterval = 0 | 500 – 50000]

Controls how frequently RICOH InfoPrint XT issues message **5019-040** to indicate data stream conversion progress. Valid values are:

0

RICOH InfoPrint XT does not issue message **5019-040**.

500 – 50000

RICOH InfoPrint XT issues message **5019-040** when the number of pages converted is approximately an even multiple of this value. For example, if you specify **xpginterval=1000**, RICOH InfoPrint XT issues message **5019-040** when it has converted pages 1000, 2000, 3000, etc.

500 is the default value.

Note

1. Message **5019-040** and the **xpginterval** parameter are useful for monitoring the progress of large jobs. While the job is running, **5019-040** messages appear in the **x2afp.lst** file in the job directory. When job conversion is complete, the **5019-040** messages issued for the job appear in the **pdxtx2afp.log** file in the job directory.
2. RICOH InfoPrint XT might also issue message **5019-040** when an error occurs to show the approximate number of the last page converted.

[xptxmaxareas = *areas* **]**

Specifies the total number of primary and secondary internal data areas that uses during data stream conversion.

If you omit the parameter, RICOH InfoPrint XT calculates the maximum number of primary and secondary internal data areas that can be allocated by using the available virtual storage.

Note

1. The intent of **xptxsize** and **xptxmaxareas** is to let you allocate an area of virtual storage that is large enough to hold all the internal data that RICOH InfoPrint XT needs to convert the data stream. Since it is difficult to know in advance exactly how much virtual storage is needed, you can use the secondary **xptxsize** parameter value to decrease the chances of using I/O to a temporary file and yet avoid requesting more storage than your job actually needs.
2. If a large amount of data is being processed and too much virtual storage is being used, **xptxmaxareas** lets you limit the number of secondary data areas that are allocated.
3. If you request a primary **xptxsize** greater than the maximum amount of available virtual storage, RICOH InfoPrint XT issues a message to indicate that your request exceeded the upper limit and that it has adjusted the requested primary **xptxsize** to conform to the maximum allowed. If you also requested a secondary **xptxsize** value, RICOH InfoPrint XT issues a message indicating that it does not allocate secondary data areas since the primary area uses all of the available space. RICOH InfoPrint XT also issues this message if the space remaining after the allocation of the primary data area is less than 12 KB.
4. If the internal data storage requirements exceed the size of the primary data area, RICOH InfoPrint XT allocates and uses secondary areas as long as space is available and the number of areas does not exceed the maximum. This limit is the smaller of the maximum calculated by RICOH InfoPrint XT or the value you specify for the **xptxmaxareas** parameter.
5. When more than one area is used, RICOH InfoPrint XT issues a message to indicate how many areas were allocated and the primary **xptxsize** value that RICOH InfoPrint XT would require to use only one area. This information can be helpful in improving performance of other jobs, since allocating multiple internal data areas can the increase execution time because of the additional requests to get system storage.
6. If the amount of data processed exceeds the size of the available primary and secondary internal areas, RICOH InfoPrint XT writes the remaining internal data to a temporary file. This additional I/O might increase the execution time.
7. When RICOH InfoPrint XT writes data to a temporary file, it issues a message to indicate how much data is involved and to recommend **xptxsize** values that could avoid I/O to the temporary file.

[xptxsize = *primary_sizeU*:*secondary_sizeU* **]**

Specifies the sizes of the primary and secondary internal data areas that RICOH InfoPrint XT uses during data stream conversion. The minimum size fort he primary and secondary data areas is 12 KB. The maximum size depends on the amount of virtual storage available to the job.

U specifies the data size units as K (kilobytes) or M (megabytes).For example, if you specify **xptxsize=32M:4M**, RICOH InfoPrint XT allocates one primary internal data area of 32 MB and as many secondary areas of 4 MB as are required to convert the data stream, up to the maximum amount of virtual storage available to the job.

If you omit the parameter, RICOH InfoPrint XT uses the default value of **xptxsize=832K:832K**.

[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 RICOH InfoPrint XT writes a report of all DJDEs found in the job. Specifying **xrptfile=.** causes RICOH 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 **/var/pdxt/jobs/***jobname-jobID-n* or **/var/pdxt/jobs/***jobname-jobID-n*. If you do not specify this parameter, RICOH 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 RICOH InfoPrint XT interprets Xerox shading when it converts the Xerox data stream and any inline FRMs that FILE DJDEs specify. Valid values are:

xerox

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

grayscale

RICOH 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* **]**

RICOH 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 RICOH InfoPrint XT uses for LIGHT shading.

mp

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

hp

The coverage percentage that RICOH 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, RICOH InfoPrint XT uses the default percentage for LIGHT, MEDIUM, or HEAVY. These are examples of values you can specify:

xshading = :8:16

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

xshading = 3

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

xshading = :11

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

xshading = ::14

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

xshading = 4:9:12

RICOH 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 Xerox job restrictions, p. 17.

[xspacing = none | word | trnw | char]

Specifies adjustments that RICOH InfoPrint XT makes to the spacing to match the original Xerox output as closely as possible. This conversion parameter also affects spacing fidelity for inline FRMs in FILE DJDE jobs:

xspacing = none

Specifies no spacing adjustment. This is the default.

xspacing = word

Specifies spacing adjustments between words only.

xspacing = trnw

Specifies spacing adjustments between words only and reduces or eliminates embedded blanks in Presentation Text Object Content Architecture text characters.

xspacing = char

Specifies spacing adjustments between words and characters.

Note

1. Use of word adjustments or character adjustments affects RICOH InfoPrint XT performance and results in larger AFP files.
2. The value of this attribute affects how RICOH InfoPrint XT processes jobs that contain FILE DJDE commands.

[xspcrmi = yes | no]

Controls how RICOH InfoPrint XT interprets spacing characters in Xerox fonts during job processing for fonts that FILE DJDEs specify:

no

RICOH InfoPrint XT interprets spacing characters in the font as Presentation Text Object Content Architecture text-string characters. This is the default.

yes

RICOH InfoPrint XT interprets spacing characters in the font as Relative Move Inline structured fields.

Restrictions apply when you use the **xspcrmi** conversion parameter. See Xerox job restrictions, p. 17.

Note

The **xspcrmi** conversion parameter does not control how RICOH InfoPrint XT interprets spacing characters in Xerox fonts that you have previously loaded with the **pdxtloadres** command. If you specify **xspcrmi=yes** and the job does not contain FILE DJDE commands, RICOH 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 **pdxtloadres** 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. RICOH InfoPrint XT issues a warning message for each sheet, over 102 sheets, that accumulates for a single stapling action.

Note

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, RICOH InfoPrint XT honors the NTO1 limits that the JDEs for the job specify.

[xstapleorient = yes | no]

Specifies whether RICOH InfoPrint XT honors the orientation of the first page of a report when it determines which corner to staple. The default is that RICOH 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**, RICOH 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, RICOH 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, RICOH InfoPrint XT includes stapling commands in the AFP regardless of whether the starting JDL and JDE pair specifies stapling.

[xtblkln = *n* **]**

For offline jobs, this conversion parameter specifies the block length. If you do not specify this parameter, RICOH InfoPrint XT uses the value that the starting JDE specifies. For RICOH InfoPrint XT to honor the **xtblkln** conversion parameter, you must specify **xdeblock=yes**.

[xtoffset = *n* **]**

For offline jobs, this conversion parameter specifies the buffer offset. If you so not specify this parameter, RICOH InfoPrint XT uses the value that the starting JDE specifies. For RICOH InfoPrint XT to honor the **xtoffset** conversion parameter, you must specify **xdeblock=yes**.

[xtrblanks = no | yes]

Specifies whether RICOH InfoPrint XT removes the trailing blanks on each line of the input data stream. If you do not specify this parameter, RICOH InfoPrint XT does not remove the trailing blanks.

[xtrecfm = fixed | decimal | variable]

For offline jobs, this conversion parameter specifies the record format. If you do not specify this parameter, RICOH InfoPrint XT uses the value that the starting JDE specifies. For RICOH InfoPrint XT to honor the **xtrecfm** conversion parameter, you must specify **xdeblock=yes** or use the **-b pass** option and value of the **pdxtjtape** command.

[xtrecln = *n* **]**

For offline jobs, this conversion parameter specifies the record format. If you do not specify this parameter, RICOH InfoPrint XT uses the value that the starting JDE specifies. For RICOH InfoPrint XT to honor the **xtrecfm** conversion parameter, you must specify **xdeblock=yes** or use the **-b pass** option and value of the **pdxtjtape** command.

[xwarnrc = none | all | *msg1*:*msg2*:*msg3***]**

The **xwarnrc** parameter allows you to control the return code that InfoPrint XT generates when it issues warning messages.

none

Warning messages result in a return code of at least 4. This is the default.

all

RICOH InfoPrint XT changes the return code associated with all warning messages from 4 to 0.

msg1:*msg2*:*msg3*

RICOH InfoPrint XT changes the return code associated with the message numbers that you specify from 4 to 0. You can specify up to three warning message numbers. Separate the message numbers with colons.

These are examples of values you can specify:

`xwarnrc=all`

If RICOH InfoPrint XT issues any warning messages while converting a job, and does not issue any messages with a severity higher than **W**, it will change the resulting return code for the job from 4 to 0.

`xwarnrc=5019-181:5019-192`

If RICOH InfoPrint XT issues message 5019-181 (DJDE ignored) or 5019-192 (incorrect COLLATE DJDE) while converting a job, and does not issue any other warning messages or messages with a severity higher than **W**, it will change the resulting return code for the job from 4 to 0.

Note

1. This parameter can be useful when the warnings that InfoPrint XT issues do not affect the AFP output for a job, but the job should end with return code 0 for RICOH InfoPrint XT to interact properly with other software, such as RICOH ProcessDirector or InfoPrint Manager.

   For example, if an input file contains multiple consecutive DJDE packets, you can specify the default **xconsecutivedjde=ignore** parameter to cause RICOH InfoPrint XT to process the first DJDE packet and ignore the second DJDE packet. RICOH InfoPrint XT issues a warning message when it ignores the second DJDE packet. If the AFP output for the job is correct, you can use the **xwarnrc** parameter to change the ending return code from 4 to 0.
2. If RICOH InfoPrint XT issues one or more data stream conversion messages with a severity of **E**, **S** or **U**, the job will end with the highest corresponding return code, regardless of whether you specified the **xwarnrc** parameter.
3. The **xwarnrc** parameter only affects data stream conversion warning messages (**5019-*nnn* W**).

[xzctrace = yes | no]

Captures trace information that a technical support representative can use for problem analysis. If you do not specify this parameter, RICOH 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, RICOH InfoPrint XT does not capture trace information. Use this parameter only at the direction of a technical support representative.

11. Messages

- **RICOH InfoPrint XT messages: 5016-***nnn*
- **Resource utility messages: 5017-***nnn X* **(***xxx***)**
- **Resource converter messages: 5018-***nnn*
- **Data stream converter messages: 5019-***nnn X* **(***xxx***)**
- **JSL Metrics Compiler messages: 5031-***nnn*
- **RICOH InfoPrint XT color messages: 5032-***nnn*
- **DJDE report messages: ALTER through XMP**

This chapter lists the RICOH InfoPrint XT messages in ascending numerical order, describes what the system does after an error occurs, and suggests what you should do to correct the problem. The message entries in this section provide:

Message number and text:

The message text provides the description of an error, an event, or some other condition.

Explanation:

The explanation gives more information about the condition that caused RICOH InfoPrint XT to issue the message.

System Action:

The system action describes how the system responds to the condition.

User Response:

The user response provides actions for recovering from the error condition. Often this part of the entry gives more than one recovery action, or a series of related recovery actions; this means that more than one problem might have caused the error.

RICOH InfoPrint XT messages: 5016-*nnn*

This section lists the 5016 series of messages that InfoPrint XT can issue. Some of the messages might include an additional error return code. For explanations of these numbers, see .

Note

You can also see detailed error message information by entering the **pdxtmsg** command. See Using the pdxtmsg command, p. 251.

5016 message explanations

5016-001: The command option `-option` is not valid.

Explanation: You issued a command and included an option that is not valid. The message text identifies the option.

System action: RICOH InfoPrint XT cannot process the command.

User response: Review the command syntax. Then, issue the command again.

5016-002: Cannot process command option *-option*. The value for the option is missing.

Explanation: You issued 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: RICOH InfoPrint XT cannot process the request.

User response: Specify a value for the option. Then, issue the command again.

5016-003: The command did not expect the value *"value"*.

Explanation: You issued a command and included an option or other argument that is not valid. The message text identifies the unexpected value.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid value. Then, issue the command again.

5016-004: Command options *-option* and *-option* are mutually exclusive.

Explanation: You issued a command and included two options that the command cannot process together.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify only one of the options. Then, issue the command again.

5016-005: Value *incorrect_value* is not valid for command option *-option*.

Explanation: You issued 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: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-006: There are too many instances of the *-option* command option. You can specify up to *nn* instances.

Explanation: You issued a command and included more than one instance of a command option. You specified the command option more times than RICOH InfoPrint XT allows. The message text indicates the maximum number of times that you can specify the option.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-007: One or more required parameters are missing.

Explanation: You issued a command that has required parameters, but you did not specify one or more of the required parameters.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-008: Cannot parse *environment_variable* (error *ReturnCode*). *...msg*

Explanation: You issued a command that reads an environment variable to obtain default command options. An error occurred when RICOH 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: RICOH InfoPrint XT cannot process the request.

User response: Correct the value of the environment variable. Then, issue the command again.

5016-010: One or more required command options are missing.

Explanation: You issued a command that has required command options, but you did not specify one or more of the required command options.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-012: Command options *-option1* and *-option2* conflict with each other.

Explanation: You issued a command with two command options that do not work together.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax and enter the command again with only one of the command options.

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: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-014: Command options *-first_command_option* and *-second_command_option* conflict with each other.

Explanation: You issued a command with two command options that do not work together.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-015: Command options -f_none and *-command_option* conflict with each other.

Explanation: You issued a command with two command options that do not work together.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-016: Command parameters *-parameter* and *-parameter* are mutually exclusive.

Explanation: You issued a command and included two parameters that the command cannot process together.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify only one of the parameters, or specify a valid combination of both parameters. Then, issue the command again.

5016-050: The directive *directive* is not valid.

Explanation: You issued a command that uses directives, but you specified a directive that is not valid.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the directive. Then, issue the command again.

5016-051: Cannot process directive *-directive*. The value for the directive is missing.

Explanation: You issued a command with a directive that requires a value, but the value for the directive was missing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a value for the directive. Then, issue the command again.

5016-052: Value "*value*" is not valid for directive *-directive*.

Explanation: You issued 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: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid value for the directive. Then, issue the command again.

5016-053: The value for directive *-directive* is too long.

Explanation: You issued a command with a directive value that was longer than the allowed length.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid value for the directive. Then, issue the command again.

5016-054: Cannot parse a directive (error *Return Code*). ...*msg*

Explanation: You issued a command with a directive value that RICOH 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: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid value for the directive. Then, issue the command again.

5016-100: The resource *resource_name* is already loaded. Use the -r command option to replace it.

Explanation: You issued the **pdxtloadres** command to load the resource specified in the message, but 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: RICOH InfoPrint XT cannot process the request.

User response: Specify the **-r** option. Then, issue the command again.

5016-102: The input list file did not contain any valid resources.

Explanation: You issued the **pdxtloadres** command and included the **-l** option or 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. RICOH InfoPrint XT also issues this message if the file is empty.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the problem with the input list file. Then, issue the command again.

5016-103: The input pattern-matching string use for the search did not match any valid resources.

Explanation: You issued the **pdxtloadres** command and included the **-n** option or the **-N** option, which specified a pattern-matching string to use to locate specific Xerox resources. RICOH InfoPrint XT did not locate any valid resources when it used the pattern-matching string.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the problem with the pattern-matching string. Then, issue the command again.

5016-104: You cannot use command option *-option* when you delete resources.

Explanation: You issued the **pdxtloadres** 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: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5016-110: Specify one or more actual destinations.

Explanation: You issued the **pdxtsetdest** command and did not specify one or more actual destinations.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify an actual destination. Then, issue the **pdxtsetdest** command again.

5016-111: Destination name *name* is not valid. It is too long.

Explanation: You issued the **pdxtsetdest** command and specified an actual destination name that is longer than InfoPrint Manager allows.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid destination name. Then, issue the command again.

5016-112: *value* is not an actual destination name.

Explanation: You issued the **pdxtsetdest** command and specified the name that the message identifies as the actual destination name. No actual destination with that name exists.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify the name of an existing actual destination. Then, issue the command again.

5016-113: You cannot specify other server names when you specify "*:".

Explanation: You issued the **pdxtcrtxform** command and used ***:** to specify all servers. You also included a specific server name with the command. You cannot combine these two parameters.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify ***:** or a specific server name.

5016-114: Specify a message number.

Explanation: You issued the **pdxtmsg** command, but you did not specify a message number. You must specify a message number to view further information.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a message number. Then, issue the command again.

5016-115: *nn* is not a valid message number.

Explanation: You issued the **pdxtmsg** command and specified the number identified in the message. That number is not in the nnnn-nnn format.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid message number in the correct format. Then, issue the command again.

5016-116: Message *nn* does not exist.

Explanation: You issued the **pdxtmsg** command and specified the number identified in the message. That number is not in the message catalog.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid message number. Then, issue the command again.

5016-120: The command option *option* is not valid.

Explanation: The **pdxtx2afp** command included an option that is not valid.

System action: RICOH InfoPrint XT cannot process the command.

User response: Make sure that the **pdxtx2afp** command syntax is correct in the calling program, script or line command. For example, with InfoPrint Manager enter the **pdxtcrtxform** command to

reconfigure the **x2afp** configurable transform. With RICOH ProcessDirector, check the **pdxtx2afp** command syntax in the **RunExternalProgram** step.

5016-121: Cannot process command option *-option*. The value for the option is missing.

Explanation: The **pdxtx2afp** command includes an option that requires a value. The value for the option was missing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the **pdxtx2afp** command syntax is correct in the calling program, script or line command. For example, with InfoPrint Manager, enter the **pdxtcrtxform** command to reconfigure the **x2afp** configurable transform. With RICOH ProcessDirector, check the **pdxtx2afp** command syntax in the **RunExternalProgram** step.

5016-122: The command did not expect the value "*value*".

Explanation: The **pdxtx2afp** command included an option or other argument that is not valid.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the **pdxtx2afp** command syntax is correct in the calling program, script or line command. For example, with InfoPrint Manager, enter the **pdxtcrtxform** command to reconfigure the **x2afp** configurable transform. With RICOH ProcessDirector, check the **pdxtx2afp** command syntax in the **RunExternalProgram** step.

5016-123: The command option *-option* is missing.

Explanation: InfoPrint Manager issued the **pdxtx2afp** command without a required command option. The attributes of the **x2afp** configurable transform might not be correct.

System action: RICOH InfoPrint XT cannot process the request.

User response: Issue the **pdxtcrtxform** command to reconfigure the **x2afp** configurable transform.

5016-124: The –a parameter of the pdxtx2afp command has replaced the pdxtcapture command, which is deprecated.

Explanation: The **pdxtcapture** command is deprecated and is no longer operational. To capture job information, run the **pdxtx2afp** command with the **–a** *jobcapturearchive* parameter.

System action: RICOH InfoPrint XT processes the request.

User response: To capture diagnostic job information, add the **–a** *jobcapturearchive* parameter to the **pdxtx2afp** command. Then, issue the command again.

5016-200: Cannot access *file_or_directory* (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 action failed.

Note

For the accessing the ink correlation table, the explanation is: a directory containing the ink correlation table is not accessible.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the specified file or directory and correct the problem. Then, issue the command again.

5016-201: Cannot open file *file_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot open the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file or the directory that contains the file and correct the problem. Then, issue the command again.

5016-202: Cannot read file *file_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot read the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, issue the command again.

5016-203: Cannot write to file *file_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot write to the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file or use the additional information that the message specifies to correct the problem. Then, issue the command again.

5016-204: File *file_name* does not exist.

Explanation: The file identified in the message does not exist. The file might be one you specified or one that RICOH InfoPrint XT tried to create.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid file name. Then, issue the command again. Or, use other error information to determine why RICOH InfoPrint XT cannot create the file.

5016-205: File *file_name* is empty.

Explanation: The file identified in the message exists, but it does not contain any data.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the problem with the file. Then, issue the command again.

5016-206: Cannot rename file *file_name* to *file_name* (error *ReturnCode*). *...msg*

Explanation: You issued a command, but RICOH InfoPrint XT cannot rename the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, issue the command again.

5016-207: Cannot set permissions for file *file_name* (error *ReturnCode*). *...msg*

Explanation: You issued a command, but RICOH InfoPrint XT cannot change the permissions for the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, issue the command again.

5016-208: Cannot set the ownership of file *file_name* (error *ReturnCode*). *...msg*

Explanation: You issued a command, but RICOH InfoPrint XT cannot set the ownership for the file identified in the message. The message provides additional information about why setting the ownership failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, issue the command again.

5016-209: Cannot lock file *file_name* (error *ReturnCode*). *...msg*

Explanation: You issued a command, but RICOH InfoPrint XT cannot lock the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, issue the command again.

5016-210: Cannot read from fd*n* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot read from the file descriptor identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-211: Cannot write to fd*n* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot write to the file descriptor identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-217: Cannot link *source* to *target* (error *ReturnCode*). *...msg*

Explanation: You entered a command, but RICOH InfoPrint XT cannot create the link identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the entries identified in the message and correct the problem. Then, issue the command again.

5016-220: AFP record *record_number* (offset *offset*) is not valid. The structured field introducer is not complete.

Explanation: RICOH InfoPrint XT cannot read the AFP data stream. The introducer portion of a structured field is not complete.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the AFP data stream. Then, issue the command again If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-221: AFP record *record_number* (offset *offset*) is not valid. The structured field data is not complete.

Explanation: RICOH InfoPrint XT cannot read the AFP data stream. Not enough data exists to satisfy the length specified in the structured field introducer.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the AFP data stream. Then, issue the command again. If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-222: AFP record *record_number* (offset *offset*) is not valid. The carriage control is 0x*nn*, not 0x5A.

Explanation: RICOH InfoPrint XT cannot read an AFP data stream. The carriage control is not correct.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the AFP data stream. Then, issue the command again. If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-230: Cannot create directory *directory_name* (error *ReturnCode*). *...msg*

Explanation: RICOH 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 action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the directory or directories and correct the problem. Then, issue the command again.

5016-231: Cannot change to directory *directory_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot change to the directory identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the specified directory and correct the problem. Then, issue the command again.

5016-232: Cannot open directory *directory_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot open the directory identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the specified directory and correct the problem. Then, issue the command again.

5016-233: Cannot read directory *directory_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot read the directory identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the directory and correct the problem. Then, issue the command again.

5016-234: Cannot resolve directory *directory_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot delete the directory identified in the message. The directory might not exist or might not have the correct permissions. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the specified directory exists and that it has the correct permissions. Then, issue the command again.

5016-235: Cannot delete directory *directory_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot resolve the directory identified in the message. The directory might not exist or might not have the permissions required to delete the specified directory. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the directory ownership and permissions and correct the problem. Then, issue the command again.

5016-236: Cannot access current directory (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot access the current directory. The user might not have the permissions required to access the current directory. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the ownership and permissions for the current directory and correct the problem. Then, issue the command again.

5016-240: Cannot search *directory_name* (error *ReturnCode*). *...msg*

Explanation: You issued a command that required RICOH InfoPrint XT to scan a directory using a pattern-matching string. The scan operation failed. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-250: Cannot allocate storage (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot allocate the required storage. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-260: Cannot create semaphore *semaphore* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot create the semaphore identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-261: Cannot create values for semaphore *semaphore* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot set the values for the semaphore identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-262: Cannot access semaphore *semaphore* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot access the semaphore identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-263: Cannot get values for semaphore *semaphore* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot get the values for the semaphore identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-264: Cannot remove semaphore *semaphore* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot remove the semaphore identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-280: Command *command* failed (error *ReturnCode*). *...stderr*

Explanation: RICOH InfoPrint XT issued the command identified in the message, but it failed. The message provides additional information about why the command failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-281: Command *command* failed (error *ReturnCode*).

Explanation: RICOH InfoPrint XT issued the command identified in the message. The command does not return any standard error output when it failed.

System action: RICOH 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. Then, issue the command again.

5016-282: Cannot launch the command *command* (error *ReturnCode*) *...msg*.

Explanation: RICOH InfoPrint XT issued the command identified in the message, but it failed. The message provides additional information about why the command failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-283: Cannot read from command *command* (*ReturnCode*) *...msg*.

Explanation: RICOH InfoPrint XT cannot read the output from the command identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-289: Cannot find an entry for *group_name* in the system group database (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot find an entry for the specified group name in the system group database. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Contact your system administrator. Verify that the specified group exists on the system and is correctly configured. Use the information that the message provides to correct the problem. Then, issue the command again.

5016-290: Cannot set the effective group to *group_name* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT cannot set the effective group to the value specified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-291: You must issue this command while logged in as the root user.

Explanation: You issued the command while logged in with a user name other than **root**.

System action: RICOH InfoPrint XT cannot process the request.

User response: Log in as the root user. Then, issue the command again.

5016-292: You must be in the *group_name* group to issue this command.

Explanation: You issued the command while logged in with a user name that is not in the required group.

System action: RICOH 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, issue the command again.

5016-400: Cannot query destination *destination_name* ... *stderr*

Explanation: You issued the **pdxtsetdest** command to configure an actual destination for use with RICOH InfoPrint XT. The **pdls** query of the actual destination failed. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-401: Cannot query destination *destination_name* (error *ReturnCode*). *...msg*

Explanation: You issued the **pdxtsetdest** command to configure an actual destination for use with RICOH InfoPrint XT. The **pdls** query of the actual destination failed. Or, there was a problem with the information returned by the command.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the return code information to identify the problem and correct it. Then, issue the command again.

5016-402: Cannot create or set the x2afp transform for *server_name ... stderr*

Explanation: You issued the **pdxtcrtxform** command to create an **x2afp** configurable transform object in the server identified in the message. Either the **pdcreate** function or the **pdset** function failed. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-403: Cannot query the server list (error *ReturnCode*). *...msg*

Explanation: You issued the **pdxtcrtxform** command with the ***:** option, which creates an **x2afp** configurable transform object in all InfoPrint Manager servers. An error occurred when RICOH InfoPrint XT tried to build the list of servers. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-404: Cannot query the server list. *...stderr*

Explanation: You issued the **pdxtcrtxform** command with the ***:** option, which creates an **x2afp** configurable transform object in all InfoPrint Manager servers. An error occurred when RICOH InfoPrint XT tried to build the list of servers. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-405: There are no active servers.

Explanation: You issued the **pdxtcrtxform** command with the ***:** option, which creates an **x2afp** configurable transform object in all InfoPrint Manager servers. InfoPrint Manager did not return any server names when RICOH InfoPrint XT queried for the list of InfoPrint Manager servers.

System action: RICOH InfoPrint XT cannot process the request.

User response: There might be a problem with InfoPrint Manager. Manually issue the **pdls -c server *:** command to try to list the InfoPrint Manager servers. Use any information provided by InfoPrint Manager to correct the problem. Then, issue the command again.

5016-406: Cannot query the default server (error *ReturnCode*). *...msg*

Explanation: You issued the **pdxtcrtxform** command to create an **x2afp** configurable transform object in the default InfoPrint Manager server. An error occurred when InfoPrint Manager tried to determine the name of the default server. InfoPrint Manager identifies the default server by the setting of the **PDPRINTER** environment variable. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-407: Cannot query the default server. *stderr*

Explanation: You issued the **pdxtcrtxform** command to create an **x2afp** configurable transform object in the default InfoPrint Manager server. An error occurred when RICOH InfoPrint XT tried to determine the name of the default server. InfoPrint Manager identifies the default server by the setting of the **PDPRINTER** environment variable. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5016-408: There is no default server.

Explanation: You issued the **pdxtcrtxform** command to create an **x2afp** configurable transform object in the default InfoPrint Manager server. InfoPrint Manager identifies the default server by the setting of the **PDPRINTER** environment variable. RICOH InfoPrint XT did not find a default server.

System action: RICOH InfoPrint XT cannot process the request.

User response: Set the default InfoPrint Manager server by setting the **PDPRINTER** environment variable. Then, issue the command again. Or, specify the name of a server when you issue the **pdxtcrtxform** command.

5016-409: Cannot query attribute *attribute* (error *ReturnCode*). *...msg*

Explanation: RICOH InfoPrint XT issued the **pdxtx2afp** command to transform a Xerox job, and tried to query the InfoPrint Manager attribute identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, submit the job again.

5016-410: Cannot parse line *line* in *file_name* (error *ReturnCode*). *...msg*

Explanation: You specified parameters in the parameter mapping file. An error occurred when RICOH 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 the variable. For example, it might contain an unbalanced set of quotation marks.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the line in the parameter mapping file. Then, issue the command again.

5016-470: Resource name *file* is not valid for deblocking.

Explanation: You issued 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: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid resource name. Then, issue the command again.

5016-471: The label record is not valid.

Explanation: You issued the **pdxtdblkres** command to deblock a resource. The first record in the resource is not a valid label record.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a different resource. Then, issue the command again.

5016-472: A block is too short. It should be *nn* bytes, not *nn* bytes.

Explanation: You issued the **pdxtdblkres** command to deblock a resource. A block in the resource is too short. The resource itself might be truncated.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a different resource. Then, issue the command again.

5016-473: Resource name *file* is not valid for blocking.

Explanation: You issued 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: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid resource name. Then, issue the command again.

5016-474: Cluster name *cluster_name* already exists in *file*.

Explanation: You issued the **pdxtcluster** command with the **-f add** function. The cluster name you specified using the **-c** parameter already exists in the cluster source file.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a cluster name that does not already exist in the cluster source file, or specify **pdxtcluster -f edit** to modify the existing cluster entry.

5016-475: A resource processor could not find cluster name *cluster_name* in *file*..

Explanation: You issued the **pdxtcluster** command with the **-f remove** function, but the cluster name you specified using the **-c** parameter does not exist in the cluster source file.

System action: RICOH InfoPrint XT continues processing.

User response: Use **pdxtcluster -f list** to display a list of clusters in the cluster source file. Then, issue the command again with the correct cluster name.

5016-476: Unable to process the cluster database request. The -n parameter matched *n* files.

Explanation: You issued the **pdxtcluster** command, but the pattern you specified using the **-n** parameter matches more than one cluster database resource. The **pdxtcluster** command can only process one cluster database at a time.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify the complete filename for the cluster database. Then, issue the command again.

5016-477: Name: AFP Tray: Xerox Trays:

Explanation: The **pdxtcluster** command with the **-f list** function displays a list of cluster names and their associated AFP Tray and Xerox Trays.

System action: RICOH InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5016-478: Cluster name *cluster_name* is not valid.

Explanation: You issued the **pdxtcluster** command and specified the **-f add**, **-f edit** or **-f remove** function. You also entered a cluster name that is not valid. Xerox cluster names must contain from 1 through 6 alphanumeric characters.

System action: RICOH InfoPrint XT cannot process the request.

User response: Specify a valid cluster name. Then, issue the command again.

5016-500: InfoPrint XT for Linux 3.4.0.0 Level *code_level compile_date compile_time*.

Explanation: This message displays the RICOH InfoPrint XT version and code level

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-501: *Date_Time* (pid *ProcessID*) - transform started.

Explanation: RICOH InfoPrint XT started to convert the Xerox job to AFP.

System action: RICOH 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: RICOH InfoPrint XT completed converting the Xerox job to AFP.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-503: Transform arguments (*argument_source*) :

Explanation: This message, with message 5016-504, lists the transform arguments in use.

System action: RICOH 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: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-505: Transform directives: (*directive_source*)

Explanation: This message, with message 5016-506, lists the transform directives in use.

System action: RICOH 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: RICOH 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: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-510: *Sequence_nn command_string*

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: RICOH 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: RICOH 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: *Sequence_nn 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: RICOH 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): *nn*

Explanation: This message shows the number of impressions that RICOH InfoPrint XT created for the job.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-515: InfoPrint XT received these job attributes for matching with keywords in parameter mapping file pdxtx2afp.map:

Explanation: This message, with message 5016-516, lists the attributes that RICOH InfoPrint XT received for the current job. RICOH InfoPrint XT attempts to match these attributes with keywords in **pdxtx2afp.map**, in order to select conversion parameters.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-516: *job_attributes*

Explanation: This message, with message 5016-515, lists the attributes that RICOH InfoPrint XT received for the current job. If the value shown for an attribute is **(none)**, the attribute was not specified.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-517: InfoPrint XT matched these job attribute keywords in parameter mapping file pdxtx2afp.map:

Explanation: This message, with message 5016-518, lists the job attribute keywords that RICOH InfoPrint XT matched in order to select conversion parameters from **pdxtx2afp.map**. Matched keywords can include **class**, **dest**, **forms**, j**obid**, **jobname**, or the special keyword and value pair, ***=***. RICOH InfoPrint XT does not display keywords that it could not match.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-518: *keyword_values*

Explanation: This message, with message 5016-517, lists the job attribute keywords that RICOH InfoPrint XT matched in order to select conversion parameters from **pdxtx2afp.map**.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-519: InfoPrint XT did not select any conversion parameters from parameter mapping file pdxtx2afp.map because it found no matching job attribute keywords.

Explanation: This message indicates that RICOH InfoPrint XT found no keywords in **pdxtx2afp.map** that matched the attribute keywords for the job, and did not select any conversion parameters from the parameter mapping file.

System action: RICOH InfoPrint XT processes the request.

User response: Make sure that **pdxtx2afp.map** includes a conversion parameter entry that specifies the correct combination of attribute keywords for the job. Then, issue the command again.

5016-520: RICOH InfoPrint XT - *globaljobID*

Explanation: This message prints at the top of the error report that prints at the end of the job if a transform error occurs. The variable is the InfoPrint Manager server global job identifier for the job.

System action: RICOH InfoPrint XT cannot complete some portion of the request.

User response: Use the information from the error report to correct the problem. Then, submit the job again.

5016-521: *file_name*:

Explanation: This message identifies the name of the log file or listing file that supplied the information in the error report.

System action: RICOH InfoPrint XT processes the request.

User response: Use the information from the error report to correct the problem. Then, submit the job again.

5016-590: Application exit *exit_name* stopped the transform (error *ReturnCode*).

Explanation: An application exit ended with a return code other than 0. This directs RICOH InfoPrint XT to stop the transform process.

System action: RICOH InfoPrint XT stops the transform process.

User response: This is an informational message and requires no user response for RICOH InfoPrint XT. Correct the problem with the application exit.

5016-600: Resource load process started for type "*resource_type*"

Explanation: RICOH InfoPrint XT has started to load resources of a specific type. The message identifies the type of resource that RICOH InfoPrint XT is loading.

System action: RICOH 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 "*resource_type*"

Explanation: RICOH InfoPrint XT has finished loading resources of a specific type. The message identifies the type of resource that RICOH InfoPrint XT loaded.

System action: RICOH 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: *nn*.

Explanation: RICOH InfoPrint XT started to convert resources of a specific type. The message indicates how many resources RICOH InfoPrint XT is converting.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-611: Conversion step *step nn* failed for resource *resource_name* (error *ReturnCode*).

Explanation: RICOH InfoPrint XT writes this message to the listing file for the resource identified in the message. Depending on your operating system platform, the listing file is in the **/var/pdxt/resources/common/pdxtloadres** directory, or **%PDXTWORKDIR%\resources\common\pdxtloadres** directory.

Or, it is in 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: RICOH 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

RICOH InfoPrint XT overwrites the listing file each time you run the **pdxtloadres** command.

5016-612: *nn* resources have completed conversion.

Explanation: When converting a group of resources, RICOH InfoPrint XT periodically issues this message to show the progress of the conversion process.

System action: RICOH 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: *nn*.

Explanation: RICOH InfoPrint XT has converted a group of resources. The message specifies the number of resources that RICOH InfoPrint XT converted successfully.

System action: RICOH 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 again. If no conversion failures occurred, no action is necessary.

5016-614: Resource correlation process started.

Explanation: During the resource-load process, RICOH InfoPrint XT issues this message when it starts to build a resource correlation table.

System action: RICOH 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-loading process, RICOH InfoPrint XT issues this message when it finishes building a resource correlation table.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-616: Resource correlation step *step_name* failed (error *ReturnCode*).

Explanation: During the resource-load process, RICOH 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: RICOH 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, RICOH InfoPrint XT issues this message when it starts to generate the metrics files.

System action: RICOH 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: *nn*.

Explanation: RICOH 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 RICOH InfoPrint XT created successfully.

System action: RICOH 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 again. If no other failures occurred, no action is necessary.

5016-619: Install process started.

Explanation: During the resource-load process, RICOH InfoPrint XT issues this message when it starts to copy the AFP resources and metrics files to their appropriate directories.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-620: *nn* resources have completed installation.

Explanation: When installing a group of resources, RICOH InfoPrint XT periodically issues this message to show the progress of the install process.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-621: Install process is complete.

Explanation:RICOH InfoPrint XT issues this message after it finishes copying the AFP resources and metrics files to the appropriate directories.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-622: Ink correlation table process failed (error *ReturnCode*).

Explanation: During the ink correlation process, RICOH InfoPrint XT issues this message when it cannot build the ink correlation table. The return code provides additional information about why the correlation failed.

System action: RICOH InfoPrint XT processes the request.

User response: Use the return code to determine why the ink correlation process failed, and correct the problem. Then issue the **pdxtcolor** command again.

5016-650: Resource sample process started for type "*resource_type*".

Explanation: InfoPrint XT has started to sample resources of a specific type. The message identifies the type of resource that InfoPrint XT is sampling.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-651: Resource sample process is complete for type "*resource_type*".

Explanation: InfoPrint XT has finished sampling resources of a specific type. The message identifies the type of resource that InfoPrint XT sampled.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-652: Resource sampling process started. Number of resources to sample: *nn*.

Explanation: RICOH InfoPrint XT started to sample resources of a specific type. The message indicates how many resources RICOH InfoPrint XT is sampling.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-653: Sampling failed for resource *resource_name* (error *ReturnCode*).

Explanation: The message indicates that sampling failed for the resource identified in the message. The return code provides additional information about why sampling failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the return code to determine why the sampling process failed and correct the problem. Then sample the resource again.

5016-654: *nn* resources have completed sampling.

Explanation: When sampling a group of resources, RICOH InfoPrint XT periodically issues this message to show the progress of the sampling process.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-655: Resource sampling process is complete. Number of successes: *nn*.

Explanation: RICOH InfoPrint XT has sampled a group of resources. The message specifies the number of resources that RICOH InfoPrint XT sampled successfully.

System action: RICOH InfoPrint XT processes the request.

User response: If any accompanying messages indicate that sampling failures occurred, determine the cause of the sampling failures and correct the problem. Then, sample the resources again. If no sampling failures occurred, no action is necessary.

5016-656: Cannot determine overlay sample page size for resource *overlay_name*.

Explanation: RICOH InfoPrint XT cannot find page size information in the resource identified in the message. The PGD (Page Descriptor) structured field is missing or corrupt.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the AFP overlay contains a valid PGD structured field. If necessary, reload the corresponding Xerox FRM. Then sample the resource again.

5016-657: One or more sampling resources are not loaded in resource library *resource_library*.

Explanation: You issued the **pdxtloadres** command to sample an AFP resource, but resource sampling requires one or more resources that are not loaded in the specified resource library. Message 5016-658 lists the missing resources.

System action: RICOH InfoPrint XT cannot process the request.

User response: Load the resources from the **/opt/infoprint/pdxt/testjob** directory into the resource library. Then issue the command again.

5016-658: *resource_name*

Explanation: This message, with message 5016-657, lists the missing resources required for resource sampling.

System action: RICOH InfoPrint XT cannot process the request.

User response: Load the resources from **/opt/infoprint/pdxt/testjob** into the resource group. Then issue the command again.

5016-659: You cannot use command option *-option* when you sample resources.

Explanation: You issued the **pdxtloadres** command and included the **-f sample** option, which is a request to sample resources. You also included another option that does not apply when you sample resources.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then issue the command again.

5016-660: You cannot use command option *-option* when you dump resources.

Explanation: You issued the **pdxtloadres** command and included the **-f dump** option, which is a request to dump resources. You also included another option that does not apply when you dump resources.

System action: RICOH InfoPrint XT cannot process the request.

User response: Review the command syntax. Then issue the command again.

5016-690: Resource delete process started for type *resource_type*. Number of resources to delete: *n*.

Explanation: RICOH 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 RICOH InfoPrint XT is deleting.

System action: RICOH 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 *resource_type*. Number of deletes: *nn*.

Explanation: RICOH InfoPrint XT issues this message after it deletes a group of resources. The message specifies the number of resources that RICOH InfoPrint XT deleted.

System action: RICOH 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.

5016-692: Cannot delete resource *resource_name*. The resource is not loaded in resource library *resource_library*.

Explanation: You issued the **pdxtloadres** command to delete the resource specified in the message, but that resource is not loaded in the specified resource library.

System action: RICOH InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5016-701: *date_time* (ppid *nn*/pid *nn*) port=*nn* - receipt started

Explanation: RICOH InfoPrint XT issues this message when it starts receiving a data set that originated through Download for z/OS.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-702: *date_time* (ppid *nn*/pid *nn*) port=*nn* (rc=*nn*) - receipt ended

Explanation: RICOH InfoPrint XT issues this message when it finishes receiving a data set that originated through Download for z/OS

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response unless the return code is a value other than 0. See Return codes for Linux, p. 398 for return codes.

5016-707: *file_name*:

Explanation: This message identifies the name of the file whose content follows in the log.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-711: Download arguments:

Explanation: This message, with message 5016-712, lists the download arguments in use.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-712: *argument* = *value*

Explanation: This message, with message 5016-711, lists the download arguments in use.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-721: Download directives (*source*):

Explanation: This message, with message 5016-722, lists the download directives in use.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-722: *download_directive* = "*value*"

Explanation: This message, with message 5016-721, lists the download directives in use and their values.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-731: Command: *command*

Explanation: This message shows the command that **pdxtdownload** invoked as part of the download process. Any information that follows this message and that precedes the associated 5016-732 message is information from this command.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-732: rc = *n*

Explanation: This message shows the return code from the command shown in the preceding 5016-731 message. Any information that follows message 5016-731 and that precedes this message is information from the command.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-733: Cannot process duplicate cluster name *cluster_name*

Explanation: This message shows the pdxtcluster command has been issued, and one or more duplicate cluster names have been specified using the -c parameter option.

System action: RICOH InfoPrint XT cannot process the request

User response: Issue the pdxtcluster command with unique cluster names.

5016-734: Resource: *resource_name* does not have a valid extension.

Explanation: RICOH InfoPrint XT did not recognize the resource name extension, or the extension is not correct for the command function you specified.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure you enter the correct extension and issue the command again.

5016-735: The file format for *resource_name* is not correct or is not supported.

Explanation: RICOH InfoPrint XT cannot process the resource because the file format is not valid.

System action: Processing continues, but RICOH InfoPrint XT does not convert the resource.

User response: Verify that the resource file is valid. If the problem continues, report this message to your technical support representative.

5016-800: The *key_type* license key was not found or is not valid.

Explanation: InfoPrint XT could not find the required key or there was a problem while collecting data about it. This message is issued in the following situations:

- License file not found, does not have access rights or is not valid.
- There was an internal error while reading information about the keys.

- The license file does not contain the required key.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure the computer license keys file is in the correct location and has the required access rights.

5016-801: The *key_type* license will expire in *value* day(s).

Explanation: This message is issued if the license (trial / maintenance) is about to expire.

System action: RICOH InfoPrint XT continues processing.

User response: Renew the license and update the license keys file before the license expires.

5016-802: The *key_type* license has expired.

Explanation: This message is issued if the license (trial / maintenance) has expired. The name of the license should provide information about the type of license.

System action: If the expired license is a trial license, RICOH InfoPrint XT cannot process the request. Otherwise (if maintenance), RICOH InfoPrint XT continues processing.

User response: Renew the license and update the license keys file in order to continue using RICOH InfoPrint XT.

5016-803: Unable to find a valid license checker.

Explanation: RICOH InfoPrint XT could not find a valid license checker executable, or the license checker does not have execute permissions.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure the **chklic** executable is in the **bin** directory of the installation directory and has the required access rights.

5016-804: The license check ended with return code *rc*.

Explanation: This message lists the license checker return code.

System action: RICOH InfoPrint XT processes the request.

User response: See the previous message for information that might help you resolve the problem.

5016-805: The license checker found a mismatch between the system fingerprint and the current license key. You must renew the license key with the new system fingerprint.

The *license_type* license will expire in *days* day(s).

Explanation: The system fingerprint has changed and no longer matches the license key. During a 7-day grace period, the license checker continued to honor the existing license key, but the grace period has ended. You must renew the license key.

System action: RICOH InfoPrint XT continues processing.

User response: Renew the license and update the license keys file before the license expires.

5016-806: The license checker found a mismatch between the system fingerprint and the current license key. You must renew the license key with the new system fingerprint.

The *license_type* has expired.

Explanation: The system fingerprint has changed and no longer matches the license key.During a 7-day grace period, the license checker continued to honor the existing license key, but the grace period has ended. You must renew the license key. Use the procedure for generating license keys, as documented in the InfoPrint XT publication.

System action: RICOH InfoPrint XT cannot process the request.

User response: Renew the license and update the license keys file.

5016-807: The *license_type* license will expire today at midnight.

The *license_type* license will expire in *days* day(s).

Explanation: This message is issued if the license (trial / maintenance) will expire today at midnight.

System action: RICOH InfoPrint XT continues processing.

User response: Renew the license and update the license keys file before the license expires.

5016-808: Updating license log failed with error code *error_code*.

Explanation: This message indicates that an internal error occurred when updating the license log file.

System action: RICOH InfoPrint XT cannot process the request.

User response: If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-809: Updating license log failed with internal error code *error_code*.

Explanation: This message indicates that an internal error occurred when checking the license log file.

System action: RICOH InfoPrint XT cannot process the request.

User response: If you cannot determine the cause of the problem, report this message to your technical support representative.

5016-810: The license checking process started.

Explanation: RICOH InfoPrint XT has started the license checking process.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-811: The license checking process is complete.

Explanation: RICOH InfoPrint XT has completed the license checking process.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-812: Processing the license key files in directory *directory_name*:

Explanation: RICOH InfoPrint XT is processing the license key files.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-813: The license key file *license_file* is valid.

Explanation: RICOH InfoPrint XT indicates that a license key file is valid.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-814: The *license_type* license key in file *license_file* will expire in *days* day (s).

Explanation: RICOH InfoPrint XT indicates that a license key file is about to expire. You must renew the license key before the license expires. Use the procedure for generating license keys, as documented in the RICOH InfoPrint XT publication.

System action: RICOH InfoPrint XT processes the request.

User response: Renew the license and update the license keys file before the license expires.

5016-815: The *license_type* license key in file *license_file* will expire today at midnight.

Explanation: RICOH InfoPrint XT indicates that a license key file will expire today at midnight. You must renew the license key before the license expires. Use the procedure for generating license keys, as documented in the RICOH InfoPrint XT publication.

System action: RICOH InfoPrint XT processes the request.

User response: Renew the license and update the license keys file before the license expires.

5016-816: The *license_type* license key in file *license_file* has expired.

Explanation: RICOH InfoPrint XT indicates that a license key file expired. You must renew the license key. Use the procedure for generating license keys, as documented in the InfoPrint XT publication.

System action: RICOH InfoPrint XT processes the request.

User response: Renew the license and update the license keys file.

5016-817: The license key file *license_file* has a fingerprint mismatch with your current system configuration.

Explanation: The system fingerprint has changed and no longer matches the license key. During a 7-day grace period, the license checker continues to honor the existing license key. You must renew the license key before the grace period ends. Use the procedure for generating license keys, as documented in the RICOH InfoPrint XT publication.

System action: RICOH InfoPrint XT processes the request.

User response: Renew the license and update the license keys file before the license expires.

5016-818: The license key file *license_file* is not valid.

Explanation: RICOH InfoPrint XT indicates that a license key file is not valid.

System action: RICOH InfoPrint XT processes the request.

User response: Install a valid license keys file.

5016-819: RICOH InfoPrint XT did not find any license key files.

Explanation: RICOH InfoPrint XT did not find any license key files.

System action: RICOH InfoPrint XT processes the request.

User response: Install a valid license keys file.

5016-820: The current system fingerprint is *system_fingerprint*.

Explanation: This message shows the current system fingerprint.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-821: No maintenance license was found.

Explanation: This message is issued if there is a perpetual license installed, but no maintenance license was found.

System action: RICOH InfoPrint XT continues processing.

User response: Install a valid maintenance license keys file.

5016-822: The license key file *license_file* is valid, but does not have a maintenance key.

Explanation: RICOH InfoPrint XT indicates that a license key file is valid but the maintenance key is missing.

System action: RICOH InfoPrint XT continues processing the request.

User response: Install a valid maintenance license keys file.

5016-823: Contact your Ricoh Product Sales team to obtain a new maintenance agreement and Entitlement ID.

Explanation: An RICOH InfoPrint XT license key has expired or is about to expire.

System action: RICOH InfoPrint XT continues processing the request.

User response: Renew your license key.

5016-824: Contact your Ricoh Product Sales team to obtain a perpetual license and Entitlement ID.

Explanation: An RICOH InfoPrint XT license key has expired or is about to expire.

System action: RICOH InfoPrint XT continues processing the request.

User response: Purchase the perpetual license and Entitlement ID.

5016-825: License installation processing failed with internal error code *ReturnCode*.

Explanation: This message indicates that an internal processing error occurred while installing a new license file.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5016-826: The license key file *file_name* is valid but expires sooner than your current license key.

Explanation: This message indicates that the new license key file that you are trying to instal is valid but expires sooner than your current license key.

System action: RICOH InfoPrint XT cannot process the request.

User response: This is an informational message and requires no user response.

5016-827: The license checker found a mismatch between the system fingerprint and the current license key. You must renew the license key with the new system fingerprint. The *license_type* license will expire today at midnight.

Explanation: The system fingerprint has changed and no longer matches the license key. During a 7-day grace period, the license checker continues to honor the existing license key. You must renew the license key before the grace period ends. Use the procedure for generating license keys, as documented in the RICOH InfoPrint XT publication.

System action: RICOH InfoPrint XT continues processing.

User response: Renew the license and update the license keys file before the license expires.

5016-840: Resource dump process started for type *resource_type*.

Explanation: RICOH InfoPrint XT has started to dump resources of the type identified in the message.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-841: Resource dump process is complete for type *resource_type*.

Explanation: RICOH InfoPrint XT has finished dumping resources of the type identified in the message.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-842: Resource dumping process started. Number of resources to dump: *number_of_resources*.

Explanation: RICOH InfoPrint XT has started to dump resources of the type identified in the message.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-843: Resource dumping process is complete. Number of successes: *number_of_successes*

Explanation: RICOH InfoPrint XT successfully dumped the number of resources specified in the message.

System action: RICOH InfoPrint XT processes the request.

User response: If any accompanying messages indicate that dumping failures occurred, determine the cause of the dumping failures and correct the problem. Then, dump the resources again. If no dumping failures occurred, no action is necessary.

5016-844: *number_of_resources* resources have completed dumping.

Explanation: When dumping a group of resources, RICOH InfoPrint XT periodically issues this message to show the progress of the dumping process.

System action: RICOH InfoPrint XT processes the request.

User response: This is an informational message and requires no user response.

5016-845: Dumping failed for resource *resource_type* (error *ReturnCode*)*... msg*.

Explanation: The message indicates that dumping failed for the resource identified in the message. The return code provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the return code to determine why the dumping process failed and correct the problem. Then, dump the resource again.

5016-850: Could not add file *FileName* to job capture archive *file_name* (error *ReturnCode*)*... msg*.

Explanation: The message indicates a failure when adding the specified file to the job capture archive. The return code provides additional information about why the operation failed.

System action: RICOH InfoPrint XT processes the request.

User response: Use the return code to determine why the file was not added to the job capture archive. Then, issue the command again.

5016-851: Could not create the job capture archive file *file_name* (error *ReturnCode*)*... msg*.

Explanation: The message indicates a failure when creating the job capture archive. The return code provides additional information about why the operation failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the return code to determine why the job capture archive was not created. Then, run the job again.

5016-852: Could not retrieve the system fingerprint (error *ReturnCode*)*... msg*.

Explanation: The message indicates a failure when attempting to retrieve the system fingerprint. The return code provides additional information about why the operation failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the return code to determine why **pdxtlicense** failed to retrieve the system fingerprint. Then, run **pdxtlicense** again.

5016-900: Message *nnnn-nnn* does not exist.

Explanation: RICOH InfoPrint XT found an error while processing a message.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

Using the pdxtmsg command

RICOH InfoPrint XT provides the **pdxtmsg** command, which you can use to display detailed information about messages on the system that is running RICOH InfoPrint XT.

The syntax for the **pdxtmsg** command is:

pdxtmsg [-d] [-t] *nnnn-nnn*

[-d]

Displays only the explanation, system action, and response information for the message.

[-t]

Displays only the text of the message.

nnnn-nnn

Specifies the 7-digit RICOH InfoPrint XT message number. The number must be in the format shown. The 4-digit prefix must be an RICOH InfoPrint XT message prefix.

If you do not specify either of the options for the command, RICOH InfoPrint XT shows the message text, the explanation, the system action, and the response.

Resource utility messages: 5017-*nnn X* (*xxx*)

This section lists the messages that the RICOH InfoPrint XT resource utility program and resource converters can issue while loading resources.

RICOH InfoPrint XT calls the resource utility and the resource converters when it loads Xerox resources. During the load process, the resource utility creates the associated metrics files for all types of Xerox resources that RICOH InfoPrint XT processes. The resource converters create the Advanced Function Presentation versions of Xerox fonts, images, logos, and forms.

Resource path names used in messages

Some of the messages and message explanations include information about where the resource utility looked for reformatted Xerox resources and AFP resources. The **reformatted Xerox resource path** is the location of the metrics files that RICOH InfoPrint XT generates when it loads a Xerox resource.

Depending on whether the resources were loaded as common resources, or resources in a specific resource group, or resources in a specific directory, the reformatted Xerox resource path is one of these:

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 RICOH InfoPrint XT generates when it loads Xerox printable resources. The AFP resource path is one of these:

Message format and message severity

Many of the messages contain variable data, such as *file_name*, which is shown in italics. RICOH InfoPrint XT replaces the variable-data strings with specific information when it issues the messages. A vertical bar (|) between portions of message text, such as **BLOCK | RECORD**, means that RICOH InfoPrint XT uses only one of the text strings when it issues the message. The error condition determines the text string that RICOH InfoPrint XT uses.

The message identifiers use this format: **5017-*nnn X* (*xxx*)**. ***nnn*** is the 3-digit message number. **(*xxx*)** is the 3-character identifier that identifies the program module that issued the message. If you need to place a service call, the technical support representative might ask you for the program module identifier. ***X*** is a letter that indicates the severity of the message:

I

Informational. Processing continues. This corresponds to return code 0. RICOH InfoPrint XT processes the resource or resources successfully.

W

Warning. Processing continues. This corresponds to return code 4. 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. An error caused RICOH 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 RICOH 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 RICOH InfoPrint XT from loading the resource.

S

Severe error. RICOH InfoPrint XT processing stops. This corresponds to return code 12. An error prevented RICOH InfoPrint XT from loading the resource.

U

Unrecoverable error. RICOH InfoPrint XT processing stops. This corresponds to return code 16. An error prevented RICOH InfoPrint XT from loading the resource or from generating AFP output for the job.

5017 message explanations

5017-001 S: Unknown logic error.

Explanation: An unexpected error condition occurred in the parameter parser.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5017-002 S: Unrecognized keyword: *keyword*. Valid keywords are: *keyword*:*keyword*

Explanation: The parameter parser found a keyword that it does not recognize.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5017-003 S: Specified option for keyword: *keyword* is too long. The maximum length is: *nn*.

Explanation: The parameter parser found a value for a keyword that is too long.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5017-004 S: 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: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5017-005 S: Value for keyword: *keyword* is out of range. The valid range is: *lower_limit* - *upper_limit*.

Explanation: The parameter parser found a keyword value that is not in the range of valid values.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5017-006 S: Extra data: *data_string* was found after the file name. Data ignored.

Explanation: The parameter parser found extraneous data among the keywords.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5017-031 S: Module: *code_module* cannot read parameters because of an error. The data set information is not complete.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Report this message to your technical support representative.

5017-032 S: Module: *code_module* cannot read parameters because of DCB parameter errors. InfoPrint XT uses LRECL=80 and RECFM=FB.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Report this message to your technical support representative.

5017-033 S: Module: *code_module* cannot read parameters because of an error. The password is missing or incorrect.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Report this message to your technical support representative.

5017-034 S: Module: *code_module* cannot read parameters because of an error. The ONCODE is: *nn*.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the resource.

User response: For **ONCODE 92**, verify that the directory for the resource group you specified has correct ownership and permissions. Then, do the operation again. If the problem continues, or if the message displays an ONCODE other than 92, report this message to your technical support representative.

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5017-035 I: Reading resource utility parameters...

Explanation: This is an informational message that indicates that RICOH InfoPrint XT has begun reading the resource conversion parameters. It requires no user response.

5017-036 I: The resource utility parameters in effect are: *option1 option2 option3 optionN*

Explanation: This message reports the runtime options.

System action: RICOH InfoPrint XT continues to process the resources.

User response: This is an informational message and requires no user response.

5017-037 E: Incorrect resource utility parameter: *parameter*.

Explanation: A user-supplied conversion parameter does not match the valid parameters or parameter values.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Correct the parameter and rerun the program.

5017-050 I: Processing selection criteria...

Explanation: This is an informational message and requires no user response.

5017-051 E: The value for the SELECT parameter is too long. Parameter: *value*.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-052 E: Incorrect character: *character* in SELECT parameter value: *value*.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-053 E: The resource utility did not find any resource names that match the specified SELECT criteria.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-055 I: The resource utility did not find any 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.

5017-056 I: The resource utility processes Xerox resources that match this SELECT criteria: *criteria1 criteria2 criteriaN*.

Explanation: This is an informational message that reports the types of resources that RICOH InfoPrint XT is processing. It requires no user response.

5017-058 I: Processing occurs for files with these file types: *file_type1 file_type2 file_typeN*.

Explanation: This is an informational message that reports the types of resources that RICOH InfoPrint XT is processing. It requires no user response.

5017-060 I: Processing correlation source file...

Explanation: This is an informational message that indicates that RICOH InfoPrint XT is rebuilding the correlation tables. It requires no user response.

5017-061 E: Line: *nn* for correlation resource: *resource_name* contains incorrect characters.

Explanation: A resource name in the resource correlation table contains characters that are not valid.

System action: RICOH 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 RICOH InfoPrint XT. Report this message to your technical support representative.

5017-062 E: Correlation source record: *nn* does not start with D, E, F, I, or L.

Explanation: An entry in the resource correlation table starts with an incorrect record type indicator.

System action: RICOH 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 RICOH InfoPrint XT. Report this message to your technical support representative.

5017-063 E: The correlation source file processor found a duplicate entry for resource: *resource_name* on line: *line_number*. The resource utility uses the last valid entry.

Explanation: The resource correlation table contains more than one entry for a specific Xerox resource.

System action: Processing continues. RICOH 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 RICOH InfoPrint XT. Report this message to your technical support representative.

5017-064 E: 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 RICOH 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 command. Otherwise, this indicates an internal error in RICOH InfoPrint XT . Report this message to your technical support representative.

5017-065 E: The correlation source file processor found an incorrect X or Y offset for page segment: *pseg_name* 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: RICOH InfoPrint XT cannot process the resource.

User response: Correct the offset value and rerun the failing command.

5017-066 E: 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: RICOH InfoPrint XT cannot process the resource.

User response: Specify an AFP coded font for the Xerox DBCS font. Rebuild the font correlation table.

5017-067 I: The correlation source processor can not create the font correlation table.

Explanation: RICOH InfoPrint XT did not find any valid font entries in the correlation source file. Other messages might provide more information about the problem.

System action: RICOH 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. RICOH InfoPrint XT cannot process more resources without at least one font already loaded. If you manually updated the resource correlation table and expected RICOH 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 RICOH InfoPrint XT to create the table, report this message to your technical support representative.

5017-068 I: The correlation source processor cannot create the image correlation table.

Explanation: RICOH InfoPrint XT did not find any valid image entries in the correlation source file. Other messages might provide more information about the problem.

System action: RICOH 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 RICOH 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 RICOH InfoPrint XT to create the table, report this message to your technical support representative.

5017-069 I: The correlation source processor cannot create the logo correlation table.

Explanation: RICOH InfoPrint XT did not find any valid logo entries in the correlation source file. Other messages might provide more information about the problem.

System action: RICOH 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 RICOH 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 RICOH InfoPrint XT to create the table, report this message to your technical support representative.

5017-070 I: The correlation source processor created the font correlation table with: *nn* entries.

Explanation: This is an informational message that indicates the type of correlation table that RICOH InfoPrint XT created and the number of entries in the table. RICOH InfoPrint XT creates correlation tables for fonts, images, logos and inks. This message requires no user response.

5017-071 I: The correlation source processor created the image correlation table with: *nn* entries.

Explanation: This is an informational message that indicates the type of correlation table that RICOH InfoPrint XT created and the number of entries in the table. RICOH InfoPrint XT creates correlation tables for fonts, images, logos and inks. This message requires no user response.

5017-072 I: The correlation source processor created the logo correlation table with: *nn* entries.

Explanation: This is an informational message that indicates the type of correlation table that RICOH InfoPrint XT created and the number of entries in the table. RICOH InfoPrint XT creates correlation tables for fonts, images, logos and inks. This message requires no user response.

5017-073 I: The correlation source processor cannot create the ink correlation table.

Explanation: RICOH InfoPrint XT did not find any valid ink entries in the correlation source file. Other messages might provide more information about the problem.

System action: RICOH 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 RICOH 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 RICOH InfoPrint XT to create the table, report this message to your technical support representative.

5017-074 I: The correlation source processor created the ink correlation table with: *nn* entries.

Explanation: This is an informational message that indicates the type of correlation table that RICOH InfoPrint XT created and the number of entries in the table. RICOH InfoPrint XT creates correlation tables for fonts, images, logos and inks. This message requires no user response.

5017-080 I: Processing translation source file...

Explanation: This is an informational message that indicates that InfoPrint XT is rebuilding the translation tables. It requires no user response.

5017-081 E: Hexadecimal value: X'*hex_value*' 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: RICOH InfoPrint XT can not process the resource.

User response: Report this message to your technical support representative.

5017-082 E: 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: An internal error exists in a translation table source record.

System action: RICOH 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.

5017-083 E: Not enough records in translation table: *table_name* on line *line_number*.

Explanation: An internal error exists in a translation table source record.

System action: RICOH InfoPrint XT cannot process the resource.

User response: If you manually updated the translation source file, correct the record identified in the message and rerun the failing command. Otherwise, report this message to your technical support representative.

5017-084 E: Translation table : *table_name* has incorrect characters on line *line_number*.

Explanation: An internal error exists in a translation table source record.

System action: RICOH InfoPrint XT can not process the resource.

User response: If you manually updated the translation source file, correct the record identified in the message, and rerun the failing command. Otherwise, report this message to your technical support representative.

5017-085 E: The translation source file processor found an incorrect record on line *line_number*.

Explanation: An internal error exists in a translation table source record.

System action: RICOH InfoPrint XT can not process the resource.

User response: If you manually updated the translation source file, correct the record identified in the message and rerun the failing command. Otherwise, report this message to your technical support representative.

5017-086 E: The translation table source file processor created *table_count* translation tables in the reformatted Xerox resource path:

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.

5017-087 E: The resource utility created no translation tables.

Explanation: The translation source entries in the translation tables contained errors.

System action: RICOH 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.

5017-090 I: Processing Xerox resources...

Explanation: This is an informational message that indicates that RICOH InfoPrint XT is creating the metrics tables for resources. It requires no user response.

5017-091 I: The resource utility did not find any reformatted Xerox DBCS fonts for metrics extraction.

Explanation: RICOH InfoPrint XT tried to extract DBCS AFP font metrics, but it did not find a corresponding reformatted Xerox font file.

System action: RICOH InfoPrint XT can not process the resource.

User response: Verify that the fonts you are loading include Xerox DBCS fonts.

5017-092 W: The data stream converter cannot use JDL and JDE pair: *JDL_name/JDE_name* for data stream conversion because of one or more unsupported BLOCK | RECORD command functions: *function1 function2 function3*

Explanation: The JDL and JDE pair successfully loads, but RICOH InfoPrint XT issues message 5019-350 or 5019-351 and stops processing if data stream conversion uses the JDL and JDE pair. The unsupported functions that RICOH InfoPrint XT might list are FORMAT ¬= BIN and LMULT ¬= 1.

System action: RICOH InfoPrint XT continues to process the resource.

User response: If the JDL and JDE pair is essential to printing operations, report this message to your technical support representative.

5017-093 W: The resource utility processed Xerox resource: *file_name.file_type* by using paper size: *paper_size1* instead of the requested paper size: *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. RICOH InfoPrint XT used the internally specified paper size.

System action: RICOH 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 RICOH InfoPrint XT `pdxtloadres` command.

5017-094 W: These errors occurred while converting form: *form_name*:

Explanation: Additional error messages provide specific information about the errors that RICOH InfoPrint XT found during the conversion of form *form_name*.

System action: RICOH 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.

5017-095 E: The form converter could not find image: *image_name* in the image correlation table.

Explanation: RICOH InfoPrint XT did not find entries for the named image in the correlation tables located in the reformatted Xerox resource path. The image correlation tables are `tab.ait` and `tab.sit`.

System action: RICOH InfoPrint XT cannot process the request.

User response: Load the image identified in the message.

5017-096 E: The form converter cannot find logo: *logo_name* in the logo correlation table.

Explanation: RICOH InfoPrint XT did not find entries for the named logo in the correlation tables located in the reformatted Xerox resource path. The logo correlation tables are `tab.alt` and `tab.slt`.

System action: RICOH InfoPrint XT cannot process the request.

User response: Load the logo identified in the message.

5017-097 E: The form converter could not find image: *image_name* in the reformatted Xerox resource path.

Explanation: While processing a Xerox form, RICOH InfoPrint XT determined that the form referenced a Xerox IMG file (*image_name*) that is not loaded on the system.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Load the resource identified in the message and the form that generated the error.

5017-098 E: The form converter could not find logo: *logo_name* in the reformatted Xerox resource path.

Explanation: While processing a Xerox form, RICOH InfoPrint XT determined that the form referenced a Xerox LGO file (*logo_name*) that is not loaded on the system.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Load the resource identified in the message and the form that generated the error.

5017-110 I: The number of Xerox resources that were successfully processed was: *nn*. *resource1 resource2 resourceN*

Explanation: This is an informational message and requires no user response.

5017-111 I: The resource utility did not process any Xerox resources successfully.

Explanation: This is an informational message. Other messages report the reasons why RICOH InfoPrint XT cannot successfully process the resources.

5017-112 W: The number of Xerox resources that were not successfully processed was: *nn*.

Explanation: RICOH InfoPrint XT did not process *nn* resources. Other messages report the errors that RICOH InfoPrint XT found.

System action: RICOH InfoPrint XT can not process the resource or resources listed.

User response: Review the other messages and correct the problems. Then, load the resources again.

5017-113 I: The resource utility processed all requested Xerox resources successfully.

Explanation: RICOH InfoPrint XT successfully processed all the Xerox resources. This is an informational message and requires no user response.

5017-114 S: The resource utility did not process any of the requested Xerox resources successfully.

Explanation: RICOH InfoPrint XT cannot successfully process any of the Xerox resources. Other messages report the errors that RICOH InfoPrint XT found.

System action: RICOH InfoPrint XT cannot process the resources.

User response: Review the other messages and correct the problems. Then, load the resources again.

5017-115 I: The resource utility did not skip any Xerox resources.

Explanation: This is an informational message. Other messages indicate whether RICOH InfoPrint XT successfully completed the task.

5017-116 I: The number of Xerox resources that the resource utility skipped was: *nn*.

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 RICOH InfoPrint XT successfully completed the task.

5017-117 W: One or more Xerox resources do not conform to the typical source file format of sequenced 80-byte records. *nn* might not have processed successfully. *file01.xxx file02.xxx ... filenn.xxx*

Explanation: RICOH 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. RICOH 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: RICOH 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.

5017-128 I: The font correlation table has: *nn* entries.

Explanation: This is an informational message that summarizes the number of entries in the font resource correlation table. It requires no user response.

5017-129 I: The image correlation table has: *nn* entries.

Explanation: This is an informational message that summarizes the number of entries in the image resource correlation table. It requires no user response.

5017-130 I: The logo correlation table has: *nn* entries.

Explanation: This is an informational message that summarizes the number of entries in the logo resource correlation table. It requires no user response.

5017-131 W: AFP resource: *AFP_resource* correlated to Xerox resource: *Xerox_resource* does not exist in the AFP resource path.

Explanation: RICOH 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.

5017-132 W: 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 command.

5017-133 W: 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 command.

5017-134 W: 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 command. Otherwise, report this message to your technical support representative.

5017-135 W: 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 command.

5017-136 W: 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 resource and rerun the command.

5017-150 I: 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 RICOH InfoPrint XT is compiling. It requires no user response.

5017-151 E: The resource utility found an incorrect cluster name: *cl_name* in cluster database source file: *cls_name*, on line: *nn*. 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: RICOH InfoPrint XT cannot process the request.

User response: Correct the cluster name and rerun the command.

5017-153 W: Undefined cluster name: *cl_name* in cluster database source file: *cls_name*, on line: *nn* has no current or preferred AFP MMC trays assigned and is excluded from reformatted cluster database: *clb_name*.

Explanation: The *cl_name* cluster entry on record *nn* 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 RICOH 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 RICOH InfoPrint XT might have found while reformatting the cluster database.

5017-154 W: Undefined cluster name: *cl_name* in cluster database source file: *cls_name*, on line: *nn* has no current or preferred AFP MMC trays assigned.

Explanation: The *cl_name* cluster entry on record *nn* 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: Because RICOH InfoPrint XT found other, more serious errors in *cls_name*, it does not write the reformatted cluster database to the resource library.

User response: Correct the cluster database source file and rerun the command.

5017-155 E: The resource utility did not find any valid cluster entries in Xerox cluster database: *file_name*.lib. It could not process the resource.

Explanation: While processing Xerox cluster database *file_name*.lib, RICOH InfoPrint XT did not find any cluster entries.

System action: RICOH InfoPrint XT did not reformat the database. If a source file was requested, RICOH InfoPrint XT did not produce it.

User response: Verify that the Xerox cluster database that RICOH InfoPrint XT is processing contains cluster entries, and then reload the file.

5017-160 U: The resource utility can not find the correlation source file.

Explanation: RICOH InfoPrint XT cannot find the correlation source file in the reformatted Xerox resource path.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-162 U: The resource utility can not find the source file: *file_name*.

Explanation: RICOH InfoPrint XT cannot find the translation source file in the reformatted Xerox resource path.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-164 W: A record in file: *file_name* was longer than the maximum record length of: *nn*. The transform ignored data in the bytes beyond the expected length.

Explanation: A logic error occurred while reading from file *file_name*.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-171 U: Resource utility processing stopped because of unrecoverable errors.

Explanation: The resource utility program ended abnormally. The previous messages give the reason for abnormal end of the program.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Review the other messages that RICOH InfoPrint XT issued and correct the problems. Then, rerun the command.

5017-172 I: Processing ended with return code: *nn*.

Explanation: This informational message indicates the return code from resource processing.

5017-180 I: The number of text and graphic fonts listed in the form: *FRM_name* was: *nn*.

.fnt name:	AFP name:	Line spacing value:
FNT_name	*AFP_name*	*x* **inches or** *y* **pels**
FNT_name	*AFP_name*	*x* **inches or** *y* **pels**
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Explanation: This is an informational message that indicates the font resources that Xerox form *FRM_name* uses. *FNT_name* identifies a Xerox font name and *AFP_name* identifies the corresponding AFP font name (either a coded font name or a character set and code page pair). *x* and *y* are numeric values.

System action: RICOH InfoPrint XT processes the resources.

User response: This message requires no user response.

5017-182 I: The number of fonts correlated to page segments in form: *FRM_name* was: *nn*.

.fnt name:	Page segment name:	Trigger:	Line spacing value:
FNT_name	*PSEG_name*	*X'hh'*	*x* **inches or** *y* **pels**
FNT_name	*PSEG_name*	*X'hh'*	*x* **inches or** *y* **pels**
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Explanation: This is an informational message that indicates the font resources that Xerox form *FRM_name* uses. *FNT_name* identifies a Xerox font name and *PSEG_name* identifies the corresponding AFP page segment name. *x* and *y* are numeric values. X'*hh*' is the hexadecimal value of the trigger character associated with a page segment.

System action: RICOH InfoPrint XT processes the resources.

User response: This message requires no user response.

5017-184 I: The number of logo references in form: *FRM_name* was: *nn*.

.lgo name:	Page segment name:	Position:
LGO_name	*PSEG_name*	*x,y* **inches or** *x,y* **pels**
LGO_name	*PSEG_name*	*x,y* **inches or** *x,y* **pels**
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Explanation: This is an informational message that indicates the logo resources that Xerox form *FRM_name* uses. *LGO_name* identifies a Xerox logo name and *PSEG_name* identifies the corresponding AFP page segment name. *x* and *y* are numeric values. The positions shown for logos 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: RICOH InfoPrint XT processes the resources.

User response: This message requires no user response.

5017-186 I: The number of image references in form: *FRM_name* was: *nn*.

.img name:	Page segment name:	Scaling factor:	Position:
IMG_name	*PSEG_name*	*n/d*	*(x,y)* **inches or** *(x,y)* **pels**
IMG_name	*PSEG_name*	*n/d*	*(x,y)* **inches or** *(x,y)* **pels**
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Explanation: This is an informational message that indicates the image resources that Xerox form *FRM_name* uses. *IMG_name* identifies a Xerox image name and *PSEG_name* identifies the corresponding AFP page segment name. *n* and *d* are numeric values for the numerator and denominator of the scaling factor requested for the images. *x* and *y* are numeric values. The positions shown for the images reference the upper left corner of the associated page segments as viewed with the sheet in the portrait orientation.

System action: RICOH InfoPrint XT processes the resources.

User response: This message requires no user response.

5017-188 I: The number of highlight color ink references in form: *FRM_name* was: *nn*.

Ink catalog name:	Palette name:	Color name:
ICT_name	*palette_name*	*color_name*
ICT_name	*palette_name*	*color_name*
.		
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.		

Explanation: This is an informational message that indicates the highlight color resources that Xerox form *FRM_name* uses. *ICT_name* identifies an ink catalog, *palette_name* identifies a palette in the catalog, and *color_name* identifies a color in the palette.

System action: RICOH InfoPrint XT processes the resources.

User response: This message requires no user response.

5017-200 E: The resource utility can 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 could not determine the list of AFP resources that the FRM requires.

System action: RICOH 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 so that the metrics information and the overlay match the original Xerox resource.

5017-201 E: The transform cannot identify AFP fonts and page segments from form: *form_name*. Reload the form to verify resource availability.

Explanation: RICOH InfoPrint XT found a reformatted list file 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: RICOH 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.

5017-202 E: Overlay: *overlay_name* does not match the overlay that was available when the transform converted resource: *resource_list_name*.

Explanation: RICOH InfoPrint XT found that overlay *overlay_name* has changed since the last time it was loaded.

System action: RICOH 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*.

5017-203 E: The form converter did not find *frm_name.AFS* in the reformatted Xerox resource path. Internal EBCDIC font processing in *frm_name.FRM* cannot continue.

Explanation: RICOH InfoPrint XT found one or more internal EBCDIC font entries in form *frm_name.FRM*. Internal EBCDIC font processing requires the corresponding *frm_name.AFS*, but RICOH InfoPrint XT did not find this resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Load *frm_name.FSL* and make sure that *frm_name.AFS* is in the reformatted Xerox resources path. This FSL must be the same one that you used to create *frm_name.FRM*. Then reload the form. To avoid internal EBCDIC font processing, you can specify the GENERIC command in the FSL, recompile it and then reload the resulting FRM.

5017-204 E: The form converter found a font list mismatch between *frm_name.FRM* and *frm_name.FSL*. Internal EBCDIC font processing in *frm_name.FRM* cannot continue.

Explanation: One or more fonts specified in form *frm_name.FRM* or the corresponding *frm_name.FSL* is not specified in the other.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that you have loaded *frm_name.FSL* is the same file that you used to create *frm_name.FRM*. Then reload the form. To avoid internal EBCDIC font processing, you can specify the GENERIC command in the FSL, recompile it and then reload the resulting FRM.

5017-205 E: The form converter found a conflict during internal EBCDIC font processing for *frm_name.FRM*.

Explanation: RICOH InfoPrint XT found one or more internal EBCDIC font references in form *frm_name.FRM*, but the corresponding *frm_name.FSL* specifies the GENERIC command. The FRM and FSL do not match.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that you have loaded *frm_name.FSL* is the same file that you used to create *frm_name.FRM*. Then reload the form. To avoid internal EBCDIC font processing, you can specify the GENERIC command in the FSL, recompile it and then reload the resulting FRM.

5017-206 E: The form converter could not process *frm_name.AFS* in the reformatted Xerox resource path. Internal EBCDIC font processing in *frm_name.FRM* cannot continue.

Explanation: RICOH InfoPrint XT found an unsupported format in *frm_name.AFS*. Internal EBCDIC font processing requires the corresponding *frm_name.AFS* in text format.

System action: RICOH InfoPrint XT cannot process the request.

User response: Load *frm_name.FSL* and make sure that *frm_name.AFS* is in the reformatted Xerox resources path. This FSL must be the same one that you used to create *frm_name.FRM*. Then reload the form. To avoid internal EBCDIC font processing, you can specify the GENERIC command in the FSL, recompile it and then reload the resulting FRM.

5017-207 E: The form converter could not find a bitmap for code point *x'hh'* in *fnt_name.FNT*. Internal EBCDIC font processing in *fnt_name.FRM* cannot continue.

Explanation: RICOH InfoPrint XT found an internal EBCDIC font bitmap that it could not correlate to a DBCS font bitmap.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the code points specified for *fnt_name.FNT* in *frm_name.FRM* exist in the DBCS font. Then, reload the form.

5017-210 E: Unrecognized parameter: *parameter*.

Explanation: RICOH InfoPrint XT did not recognize the input parameter (*parameter*) as a valid parameter.

System action: RICOH InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter and reconvert the job.

5017-211 E: Incorrect numeric argument: *argument*.

Explanation: RICOH InfoPrint XT expected a numeric argument in a parameter, but found a nonnumeric argument instead.

System action: RICOH InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter. Do the operation again.

5017-212 W: Numeric argument: *numeric_argument* is outside the range of permitted values. The transform uses this value: *nn*.

Explanation: RICOH InfoPrint XT expects the argument *numeric_argument* for the job to be numeric. It is not numeric, or the numeric value is too large or too small.

System action: RICOH InfoPrint XT replaces the incorrect value with the system default value.

User response: Correct the numeric argument and reconvert the job.

5017-220 E: The transform found a relative move in the dot direction with no preceding absolute move on page: *nn* at logical record: *nn*.

Explanation: Before the print position was established, RICOH InfoPrint XT either found characters to print or relative moves in a metacode print control record of a form.

System action: RICOH InfoPrint XT ignores the current print control record and continues processing with the next record.

User response: Correct the input form and rerun the command.

5017-222 W: The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font: *font_name*, on page: *nn*, at logical record: *nn*. Of *nn* active fonts, font: *font_name* is number: *nn* and there are no graphic fonts in the active font list.

Explanation: RICOH InfoPrint XT found a character-reshaping metacode print control sequence in a form, but a nongraphic font was in effect. The message indicates that no graphic fonts were active.

System action: Processing continues, but graphics might be missing from the output.

User response: Correct the font list for the form and reload the form.

5017-223 W: The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font: *font_name*, on page: *nnr*, at logical record: *nn*. Of *nn* active fonts, font: *font_name* is number: *nn*. Active graphic fonts include *graphic_font1* (number *n*), *graphic_font2* (number *n*), and *graphic_font3* (number *n*).

Explanation: RICOH InfoPrint XT found a character-reshaping metacode print control sequence in a form, but a nongraphic font was in effect. The message indicates that no graphic fonts were active.

System action: Processing continues, but graphics might be missing from the output.

User response: Correct the font list for the form and reload the form.

5017-224 E: A translation error occurred while processing input character: X'*input_hex*' at logical record: *nn*. Code page: *code_page* does not contain EBCDIC character: X'*EBCDIC_hex*'. The transform substituted a blank. This is the original Xerox font: *font_name*.

Explanation: While processing metacode print controls in a form, RICOH 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*, RICOH 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: RICOH InfoPrint XT continues processing.

User response: Correct the form or correlation and reload the form.

5017-225 E: RICOH InfoPrint XT found an incorrect repeat sequence on record: *nn*. The transform ignored the repeat command.

Explanation: RICOH InfoPrint XT found an error during repeat command processing at the location identified in the message.

System action: RICOH InfoPrint XT ignores the repeat command.

User response: Correct the repeat command. Then, submit the job and convert it again.

5017-226 E: RICOH InfoPrint XT found incorrect font enlargement factors: * *enlargement_vertical* * *enlargement_horizontal* on record: *nn* 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: RICOH InfoPrint XT ignores the specified enlargement factor.

User response: Correct the font enlargement factor. Then, submit the job and convert it again.

5017-227 E: RICOH InfoPrint XT did not find font information for this AFP DBCS coded font: *font_name*. Characters print as blanks.

Explanation: RICOH InfoPrint XT did not process DBCS information for *coded_font_name*.

System action: RICOH InfoPrint XT continues processing the form, but the output is not correct.

User response: Reload the corresponding Xerox font to make sure that the information is available.

5017-230 E: Correlation of Xerox DBCS font: *font_name* to non-DBCS AFP font resource: *resource_name* is not valid.

Explanation: During AFP font processing, RICOH InfoPrint XT found a correlation between a Xerox DBCS font and an AFP single-byte font. RICOH InfoPrint XT does not support this type of correlation.

System action: RICOH 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.

5017-231 E: Reformatted font information for Xerox font: *font_name* is not complete. Reload the resource to extract and store DBCS information.

Explanation: During AFP font processing, RICOH InfoPrint XT determined that the reformatted Xerox font metrics file for *font_name* does not contain DBCS information.

System action: RICOH InfoPrint XT cannot process the font.

User response: Reload the Xerox DBCS font. Then, reconvert the job.

5017-232 E: Font processing found a reference to Xerox DBCS font: *font_name*, but option: *option* is in effect. DBCS mode requires xresolution=300

Explanation: During AFP font processing, RICOH InfoPrint XT found a reference to Xerox DBCS font *font_name*, but it also found an *resolution* value other than 300.

System action: RICOH InfoPrint XT cannot process the font.

User response: Correct the resolution specification so that it specifies 300-pel resolution.

5017-233 I: Valid keywords are: *keyword*:*keyword*

Explanation: This is an informational message and requires no user response.

5017-240 S: The resource utility found an inconsistency in Xerox resource: *filename.filetype*: Error category *phase_number*: the CME length is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-241 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the orientation of ASCII X'*hex_value*' is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-242 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the high code must be at least 16. A high code of *high_code* was found.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-243 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the font file does not contain enough 512–byte blocks.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-244 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the IMG file format is not correct or is not supported.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-245 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the image scan orientation is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-246 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the number of ink names is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-247 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the number of samples per pixel is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-248 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the JDE address is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-249 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: cannot process TST data.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-250 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: cannot process PDE data.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-251 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the FRM address is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-252 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the MODIFY address is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-253 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the KCODE address is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-254 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: cannot process carriage control data.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-255 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the JDE length is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-256 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the file extension *file_extension* is not FNT, LGO, or INK.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-257 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: one or more font processing errors occurred.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-258 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: a block count error occurred.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-259 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: overlay sampling ended with an error.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-260 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: an overlay generation error occurred.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-261 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the PDE length is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-262 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: no more than 128 fonts are allowed.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-263 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: no more than 63 BEGIN statements are allowed.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-264 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the PDE font entry length error.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-265 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: a minimum length error occurred.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-266 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the TST length is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it cannot process.

System action: Processing continues, but RICOH 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.

5017-267 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the IDR length is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it can not process.

System action: Processing continues, but RICOH 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.

5017-268 S: The resource utility found an inconsistency in Xerox resource: *file_name.file_type*: Error category *phase_number*: the IDR ink list is not correct.

Explanation: The program found a resource (*file_name.file_type*) that it can not process.

System action: Processing continues, but RICOH 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.

5017-270 E: The resource utility found an incorrect character string: *character_string* (X'*hex_string*') in cluster database source file: *cls_name*, cluster name: *cl_name*, on line: *nn*, at column: *nn*. ASIZ must be coded as an A or a blank

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. The message includes information about the incorrect character.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the character and rerun the failing command.

5017-271 E: The resource utility found an incorrect character string: *character_string* (X'*hex_string*') in cluster database source file: *cls_name*, cluster name: *cl_name*, on line: *nn*, at column: *nn*. The preferred AFP MMC tray must be a blank, an E, an M, or a number from 1 through 255, right justified.

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. The message includes information about the incorrect character.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the character and rerun the failing command.

5017-272 E: The resource utility found an incorrect character string: *character_string* (X'*hex_string*') in cluster database source file: *cls_name*, cluster name: *cl_name*, on line: *nn*, at column: *nn*. The preferred Xerox trays are positional and must be a blank or a number from 1 through 8.

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. The message includes information about the incorrect character.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the character and rerun the command.

5017-273 E: The resource utility found an incorrect character string: *character_string* (X'*hex_string*') in cluster database source file: *cls_name*, cluster name: *cl_name*, on line: *nn*, at column: *nn*. The preferred Xerox tray position is not correct.

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. The message includes information about the incorrect character.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the character and rerun the failing command.

5017-274 E: The resource utility found an incorrect character string: *character_string* (X'*hex_string*') in cluster database source file: *cls_name*, cluster name: *cl_name*, on line: *nn*, at column: *nn*. The current AFP MMC tray must be a blank, an E, an M, or a number from 1 through 255, right justified.

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. The message includes information about the incorrect character.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the character and rerun the failing command.

5017-275 E: The resource utility found an incorrect character string: *character_string* (X'*hex_string*') in cluster database source file: *cls_name*, cluster name: *cl_name*, on line: *nn*, at column: *nn*. The current Xerox trays are positional and must be a blank or a number from 1 through 8.

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. The message includes information about the incorrect character.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the character and rerun the command.

5017-276 E: The resource utility found an incorrect character string: *character_string* (X'*hex_string*') in cluster database source file: *cls_name*, cluster name: *cl_name*, on line: *nn*, at column: *nn*. The current Xerox tray position is not correct.

Explanation: The cluster database source file *cl_name* contains an incorrectly coded character at the location described in the message. The message includes information about the incorrect character.

System action: RICOH InfoPrint XT cannot process the request.

User response: Correct the character and rerun the failing command.

5017-280 U: A program or operating system error has occurred. The internal diagnostic information is: ON-ERROR: ONCODE *nn*.

Explanation: A logic error occurred in the resource utility program. RICOH 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.

5017-281 U: A program or operating system error has occurred. The internal diagnostic information is: The print control value: X'*hex_value*' was not recognized on page: *page* for logical record: *record_nn*.

Explanation: A logic error occurred in the resource utility program. RICOH 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.

5017-282 U: A program or operating system error has occurred. The internal diagnostic information is: The absolute print position is not set on page: *page* for logical record: *record_nn*.

Explanation: A logic error occurred in the resource utility program. RICOH 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.

5017-283 U: A program or operating system error has occurred. The internal diagnostic information is: The font orientation value: *orientation* was not recognized on page: *page* for logical record: *record_nn* of Xerox font: *font_name*.

Explanation: A logic error occurred in the resource utility program. RICOH 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.

5017-284 U: A program or operating system error has occurred. The internal diagnostic information is: The value for the text placement identifier is not correct. Value: *value*. Program area: *program_area*.

Explanation: A logic error occurred in the resource utility program. RICOH 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.

5017-285 U: A program or operating system error has occurred. The internal diagnostic information is: The font orientation value: *orientation* is not correct for Xerox font: *font_name*. Program area: *program_area*.

Explanation: A logic error occurred in the resource utility program. RICOH 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.

5017-333 S: Message *nnnn-nnn* does not exist.

Explanation: RICOH InfoPrint XT found an error while processing a message.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-340 I: Usage: aiocifd [-f *path/font_name*] | -h | -?

Explanation: This is an informational message that indicates the correct parameters for the font analyzer.

5017-341 S: Missing or incorrect arguments.

Explanation: The font analyzer found a parameter that it did not recognize.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-342 S: The font analyzer cannot find or open font: *font_name*.

Explanation: The font analyzer did not find the *font_name* font. The resource name might be incorrect, or it might not be available on the system.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the entry is correct and that the font resource exists. Then, rerun the command. Otherwise, report this message to your technical support representative.

5017-343 S: Font: *font_name* is not a valid Xerox font.

Explanation: The font analyzer did not find the *font_name* font. The resource name might be incorrect, or it might not be available on the system.

System action: The font analyzer found an error in the *font_name* font.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5017-344 S: Font: *font_name* contains this unknown extension value: X'*extension_value*'.

Explanation: The font analyzer did not recognize the extension value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5017-345 S: Font: *font_name* contains this unknown orientation value: X'*orientation_value*'.

Explanation: The font analyzer did not recognize the orientation value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5017-346 S: Font: *font_name* contains this unknown font type value: X'*font_type_value*'.

Explanation: The font analyzer did not recognize the font type value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again. If the problem continues, report this message to your technical support representative.

5017-347 S: The font analyzer ended with this internal code: *error_code*.

Explanation: The font analyzer found an internal error during font processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-348 I: Font: *font_name* is a Xerox SBCS font.

Explanation: This is an informational message that indicates that RICOH InfoPrint XT found a Xerox single-byte character set font. It requires no user response.

5017-349 S: Font: *font_name* contains this unsupported font type value: X'00'.

Explanation: RICOH InfoPrint XT does not support this type of font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again. If the problem continues, report this message to your technical support representative.

5017-350 S: Font: *font_name* is a Xerox EBCDIC font.

Explanation: This is an informational message that indicates that RICOH InfoPrint XT found a Xerox EBCDIC font. It requires no user response.

5017-351 I: Font: *font_name* is a Xerox DBCS font that uses this type of encoding: *encoding_type*.

Explanation: This is an informational message that indicates that RICOH InfoPrint XT found a Xerox double-byte character set font. It requires no user response.

5017-352 S: Font: *font_name* contains this unknown DBCS font type value: X'*font_type_value*'.

Explanation: The font analyzer did not recognize the DBCS font type value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5017-353 S: Font: *font_name* contains this unknown encoding type value: X'*encoding_type_value*'.

Explanation: The font analyzer did not recognize the encoding type value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again. If the problem continues, report this message to your technical support representative.

5017-360 I: Usage: xrhdr | -i | -t | -? [*path/resource_name*]

Explanation: This is an informational message that indicates the correct parameters for the resource header utility.

5017-361 S: Missing or incorrect arguments.

Explanation: The resource header utility found a parameter that it did not recognize

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-362 I: The resource header utility modified resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility modified a resource header. It requires no user response.

5017-363 I: The resource header utility added a header to resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility created a resource header. It requires no user response.

5017-364 S: The resource header utility cannot find resource: *resource_name*.

Explanation: The resource header utility did not find the *resource_name* resource. The resource name might be incorrect, or it might not be available on the system.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the entry is correct and that the resource exists. Then, rerun the command. Otherwise, report this message to your technical support representative.

5017-365 S: The resource header utility cannot access resource: *resource_name*.

Explanation: The permissions for resource *resource_name* do not let the resource header utility access the resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the permissions for the resource are correct. Then, rerun the command. Otherwise, report this message to your technical support representative.

5017-366 S: A memory allocation error occurred in the resource header utility while it processed resource: *resource_name*.

Explanation: Header processing for *resource_name* resource failed because of insufficient memory.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that sufficient memory is available on the system. Then, rerun the command.

5017-367 S: The resource header utility cannot open resource: *resource_name*.

Explanation: The resource header utility did not open the *resource_name* resource. The resource name might be incorrect, or it might not be available on the system.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the entry is correct and that the resource exists. Then, rerun the command. Otherwise, report this message to your technical support representative.

5017-368 S: Resource: *resource_name* does not contain a multiple of 128 bytes.

Explanation: Valid Xerox resources must contain a multiple of 128 bytes.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5017-369 S: Resource: *resource_name* does not have a valid Xerox resource name or extension.

Explanation: Valid Xerox resource names contain a 1-to-6 character resource name before the period, and a 3-character extension after the period. The valid Xerox resource name characters are uppercase alphabetic characters, numeric characters, and the dollar sign ($).

System action: RICOH 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.

5017-370 S: Resource: *resource_name* contains an unknown extension.

Explanation: The resource header utility does not recognize the extension of the *resource_name* resource.

System action: RICOH 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.

5017-371 S: Resource: *resource_name* contains an unknown block size value.

Explanation: The resource header utility does not recognize the block size value of the *resource_name* resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5017-372 S: Resource: *resource_name* contains an unknown extension value.

Explanation: The resource header utility did not recognize the extension value of the *resource_name* resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5017-373 S: Resource: *resource_name* contains an unknown blocking factor value.

Explanation: The resource header utility does not recognize the blocking factor value of the *resource_name* resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5017-374 S: The resource header utility cannot write to resource: *resource_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-375 S: The resource header utility ended with this internal code: *nn* while processing resource: *resource_name*.

Explanation: The resource header utility found an error during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5017-376 I: The resource header utility padded resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility padded a resource to ensure that it contains one or more complete 512-byte blocks. It requires no user response.

5017-377 S: The resource header utility did not process *resource_name*, which only contains text.

Explanation: The resource name has an extension for a binary resource, but the file only contains text.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file to determine its contents. The file might contain Xerox source data. For example, if the file contains JSL data, you can rename it to *file_name*.jsl and process it with the **pdxtpdl** command.

5017-378 S: The resource header utility cannot read *resource_name*.

Explanation: RICOH InfoPrint XT cannot read the file identified in the message.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, issue the command again.

5017-379 I: The resource header utility removed padding from the header in resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility removed extraneous padding from an existing resource header. It requires no user response.

5017-420 S: Cannot create directory *directory_name* (error *ReturnCode*). ...*msg*

Explanation: RICOH 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 action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the directory or directories and correct the problem. Then, issue the command again.

Resource converter messages: 5018-*nnn*

This section lists the messages that RICOH InfoPrint XT can issue when you load Xerox fonts, images, and logos. Some messages might include an additional error return code. See for explanations of these numbers.

5018 message explanations

5018-801: Cannot open file *filename* (error *ReturnCode*). ...*msg*

Explanation: RICOH InfoPrint XT could not open the file identified in the message. The message provides additional information about why the open action failed.

System action: RICOH 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: Cannot create file *filename* (error *ReturnCode*). ...*msg*

Explanation: RICOH 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: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and directory, and correct the problem. Then, enter the command again.

5018-803: Cannot read from file (error *ReturnCode*). ...*msg*

Explanation: RICOH InfoPrint XT could not read the file identified in the message. The message provides additional information about why the read action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, enter the command again.

5018-804: Cannot write to file (error *ReturnCode*). ...*msg*

Explanation: RICOH 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: RICOH 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: Cannot allocate storage (error *ReturnCode*). ...*msg*

Explanation: RICOH InfoPrint XT could not allocate the required storage. The message provides additional information about why the storage allocation action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, enter the command again.

5018-806: Cannot access *file_or_directory* (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 action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the specified file or directory and correct the problem. Then, enter the command again.

5018-812: Incorrect message level *message level* (error *ReturnCode*)

Explanation: You entered a command and included an option that is not valid. The message text identifies the option.

System action: RICOH 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: RICOH InfoPrint XT determined that the file is not a valid Xerox resource.

System action: RICOH 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: RICOH 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: RICOH 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 RICOH InfoPrint XT to determine image orientation.

System action: RICOH 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: RICOH 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: RICOH 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 RICOH InfoPrint XT application programming interface (API).

System action: RICOH 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: RICOH 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: RICOH 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: RICOH 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 does 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: RICOH 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 code page.

System action: RICOH 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, RICOH InfoPrint XT cannot generate an AFP font.

System action: RICOH 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: RICOH 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, RICOH InfoPrint XT found an incorrect Line Control Code (LCC).

System action: RICOH 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: RICOH InfoPrint XT found an error while processing the compressed image data. The message provides the offset for the compressed image data.

System action: RICOH 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: RICOH InfoPrint XT found an error while processing the uncompressed image data. The message provides the offset in the uncompressed image data.

System action: RICOH 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: RICOH InfoPrint XT RICOH InfoPrint XT did not find X'71' at the end of the image.

System action: RICOH 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. RICOH InfoPrint XT only supports the portrait scan orientation in Restricted Raster Encoding image resources.

System action: RICOH 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: RICOH InfoPrint XT supports a maximum of two samples per pixel in Restricted Raster Encoding image resources.

System action: RICOH 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: RICOH InfoPrint XT supports a maximum sample value of one in Restricted Raster Encoding image resources.

System action: RICOH 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: RICOH InfoPrint XT expects fully qualified ink names (ink catalog name, palette name, and color name) in Restricted Raster Encoding image resources.

System action: RICOH 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.

5018-840 : The resource converter could not access the ink correlation table while processing *resourcename*.

Explanation: RICOH InfoPrint XT requires the ink correlation table to process the resource, but the table is not accessible in memory.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the ink correlation table is in the reformatted Xerox resource path and rerun the failing command. If the problem continues, report this message to your technical support representative.

5018-841: The resource converter could not resolve Xerox highlight color catalog name *catalog_name* in the ink correlation table while processing *resourcename*.

Explanation: RICOH InfoPrint XT could not recognize the named Xerox highlight color catalog.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the catalog name is **DFAULT**, **XEROX** or **XEROX1**. Rerun the failing command. If the problem continues, report this message to your technical support representative.

5018-842: The resource converter could not resolve Xerox highlight color palette name *palette_name* in the ink correlation table while processing *resourcename*.

Explanation: RICOH InfoPrint XT could not recognize the named Xerox highlight color palette.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the palette name is valid. Rerun the failing command. If the problem continues, report this message to your technical support representative.

5018-843: The resource converter could not find Xerox highlight color ink name *ink_name* in the ink correlation table while processing *resourcename*.

Explanation: RICOH InfoPrint XT did not find an entry for the named Xerox highlight color ink in the ink correlation table located in the reformatted Xerox resource path.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the ink name is valid and that the ink correlation table contains the entry. Rerun the failing command. If the problem continues, report this message to your technical support representative.

5018-844: The resource converter could not find a solid color name for Xerox highlight color ink name *ink_name* in the ink correlation table while processing *resourcename*.

Explanation: RICOH InfoPrint XT did not find an entry for the solid color associated with the named Xerox highlight color ink in the ink correlation table located in the reformatted Xerox resource path. For example, the solid color name associated with **XEROX1.CARDINAL.H35K43** in the ink correlation table is **SOLID.SIMPLE.CARDINAL**. The solid color name associated with **DFAULT.PICTORIAL. GRAYISH RED** in the ink correlation table is **SOLID.SIMPLE.RED**.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the ink name is valid and that the ink correlation table contains the entries for the named ink and for the associated solid color. Rerun the failing command. If the problem continues, report this message to your technical support representative.

5018-860: Cannot copy data to buffer (error *ReturnCode*).

Explanation: The amount of data that RICOH InfoPrint XT is copying to a MO:DCA structured field exceeds the internal buffer size. The generated AFP resource is incomplete.

System action: RICOH 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: RICOH 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: RICOH 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, RICOH 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: RICOH 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 RICOH InfoPrint XT compression algorithms reported an error while compressing the data.

System action: RICOH 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: RICOH 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, RICOH 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: RICOH 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.

5018-900: Message *nnnn-nnn* does not exist.

Explanation: RICOH InfoPrint XT found an error while processing a message.

System action: RICOH InfoPrint XT processes the request.

User response: Report this message to your technical support representative.

Data stream converter messages: 5019-*nnn X* (*xxx*)

This section lists the messages that theRICOH InfoPrint XT Xerox data stream converter program can issue. The data stream converter program converts Xerox Line Conditioned Data Stream and metacode jobs to Advanced Function Presentation.

Resource path names used in messages

Some of the messages and message explanations include information about where the data stream converter looked for reformatted Xerox resources and AFP resources. The **reformatted Xerox resource path** is the location of the metrics files that RICOH InfoPrint XT generates when it loads a Xerox resource. Depending on whether the resources were loaded as common resources, or resources in a specific resource group, or resources in a specific directory, the reformatted Xerox resource path is one of these:

1. **/var/pdxt/resources/common/metrics**
2. **/var/pdxt/resources/***resource_group***/metrics**
3. *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 RICOH InfoPrint XT generates when it loads Xerox printable resources. The AFP resource path is one of these:

1. **/var/pdxt/resources/common**
2. **/var/pdxt/resources/***resource_group*
3. */OtherDirectory*

Message format and message severity

Many of the messages contain variable data, such as *file_name*, which is shown in italics. RICOH InfoPrint XT replaces the variable-data strings with specific information when it issues the messages. A vertical bar (|) between portions of message text, such as **BLOCK | RECORD**, means that RICOH InfoPrint XT uses only one of the text strings when it issues the message. The error condition determines the text string that RICOH InfoPrint XT uses.

The message identifiers use this format: **5019-*nnn X* (*xxx*)**. ***nnn*** is the 3-digit message number. **(*xxx*)** is the 3-character identifier that identifies the program module that issued the message. If you need to place a service call, the technical support representative might ask you for the program module identifier. ***X*** is a letter that indicates the severity of the message:

I

Informational. Processing continues. This corresponds to return code 0. RICOH InfoPrint XT generates AFP output for the job.

W

Warning. Processing continues. This corresponds to return code 4. The data stream converter found a possible problem in the Xerox input data stream. RICOH InfoPrint XT still generates AFP output for the job.

E

Error. Processing continues. This corresponds to return code 8. The data stream converter found an error that caused RICOH InfoPrint XT to complete a default action. The error might or might not prevent RICOH InfoPrint XT from generating AFP output for the job.

S

Severe error. RICOH InfoPrint XT processing stops. This corresponds to return code 12. An error prevented RICOH InfoPrint XT from generating AFP output for the job.

U

Unrecoverable error. RICOH InfoPrint XT processing stops. This corresponds to return code 16. An error prevented RICOH InfoPrint XT from loading the resource or from generating AFP output for the job.

Note

When converting Xerox jobs, you can use the **xafprc** conversion parameter to control when RICOH InfoPrint XT generates AFP output, based on the return code.

You can also use the **xwarnrc** conversion parameter to control the return code associated with warning messages.

5019 message explanations

5019-001 S: Unknown logic error.

Explanation: An unexpected error condition occurred in the parameter parser.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5019-002 S: Unrecognized keyword: `keyword`. Valid keywords are: `keyword: keyword`

Explanation: The parameter parser found a keyword that it did not recognize.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5019-003 S: Specified option for keyword: *keyword* is too long. The maximum length is: *nn*.

Explanation: The parameter parser found a value for a keyword that is too long.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative

5019-004 S: 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: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5019-005 S: Value for keyword: *keyword* is out of range. The valid range is: *lower_limit* - *upper_limit*.

Explanation: The parameter parser found a keyword value that is not in the range of valid values.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5019-006 S: Extra data: *data_string* was found after the file name. Data ignored.

Explanation: The parameter parser found extraneous data among the keywords.

System action: RICOH InfoPrint XT cannot process the request.

User response: Make sure that the parameters are valid, then rerun the command. Otherwise, report this message to your technical support representative.

5019-009 I: The transform wrote *nnnn* bytes to temporary file `x2afp.tmp1.*`. To avoid I/O to a temporary file, the transform requires a minimum primary xptxsize value of *primary_size*.

Explanation: While converting the data stream, RICOH InfoPrint XT required more internal data storage than was available and wrote *n* bytes to the `x2afp.tmp1.*` temporary disk storage file. This might have caused increased execution time.

System action: RICOH InfoPrint XT continues processing the job.

User response: To improve performance, specify an initial **xptxsize** value of at least *primary_size* and rerun the job.

5019-013 S: Module: *code_module* cannot read parameters because of an error. The data set information is not complete.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Report this message to your technical support representative.

5019-014 S: Module: *code_module* cannot read parameters because of DCB parameter errors. InfoPrint XT uses LRECL=80 and RECFM=FB.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Report this message to your technical support representative.

5019-015 S: Module: *code_module* cannot read parameters because of an error. The password is missing or not correct.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Report this message to your technical support representative.

5019-016 S: Module: *code_module* cannot read parameters because of an error. The ONCODE is: *nn*.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: For ONCODE 92, verify that the InfoPrint XT working directory and its subdirectories have correct ownership and permissions. Then, do the operation again. If the problem continues, or if the message displays an ONCODE other than 92, report this message to your technical support representative.

5019-019 I: The transform allocated 1 primary and *n* secondary internal data areas. To optimize performance, the transform requires a minimum primary xptxsize value of *primary_size*.

Explanation: RICOH InfoPrint XT required more internal storage than was available in the primary area, and allocated *n* additional areas. This might have caused increased execution time.

System action: RICOH InfoPrint XT continues processing the job.

User response: Specify a primary **xptxsize** of *primary_size* or greater and rerun the job.

5019-030 I: Reading data stream conversion parameters.

Explanation: This is an informational message that identifies the source of the conversion parameters. It requires no user response.

5019-031 I: 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.

5019-032 E: Unrecognized parameter: *parameter*.

Explanation: RICOH InfoPrint XT did not recognize the input parameter (*parameter*) as a valid parameter.

System action: RICOH InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter and reconvert the job.

5019-033 E: Incorrect JDE or JDL argument: *argument*.

Explanation: The JDE or JDL name specified in the conversion parameters is either too long or contains non-alphanumeric characters.

System action: RICOH InfoPrint XT uses the system default and continues processing.

User response: Correct the JDE or JDL specification and reconvert the job.

5019-034 E: Incorrect numeric argument: *argument*.

Explanation: RICOH InfoPrint XT expected a numeric argument in a parameter, but found a nonnumeric argument instead.

System action: RICOH InfoPrint XT ignores the parameter and continues processing.

User response: Correct the parameter. Do the operation again.

5019-035 W: Numeric argument: *numeric_argument* is outside the range of permitted values. The transform uses this value: *nn*.

Explanation: RICOH 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: RICOH InfoPrint XT replaces the incorrect value with the system default value.

User response: Correct the parameter and reconvert the job.

5019-036 S: Incorrect parameter: *parameter*.

Explanation: RICOH 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: RICOH InfoPrint XT cannot process the request.

User response: Make sure that you specify the correct parameter. Then, reconvert the job.

5019-040 I: *nn* pages have completed conversion.

Explanation: When converting a data stream, RICOH InfoPrint XT periodically issues this message to show the progress of the conversion process. The message shows the approximate elapsed clock time

for each group of pages converted. The format for elapsed time is `hh:mm:ss.nnn`, where `hh` is hours, `mm` is minutes, `ss` is seconds, and `nnn` is milliseconds.

The **xpginterval** parameter lets you control how frequently RICOH InfoPrint XT issues the message.

RICOH InfoPrint XT might also issue this message when an error occurs, to show the approximate number of the last page converted.

System action: RICOH InfoPrint XT continues processing the job.

User response: This is an informational message and requires no user response.

5019-041 I: The data stream converter needs Xerox resource: *resource_name* for this conversion.

Explanation: RICOH InfoPrint XT did not find a required Xerox resource during job conversion.

System action: RICOH InfoPrint XT cannot complete the conversion.

User response: Make sure that you load the resource on the system and then rerun the job. You might also receive this as an informational message when you scan jobs for required resources.

5019-042 W: A record in file: *file_name* was longer than the maximum record length of: *nn*. The transform ignored data in the bytes beyond the expected length.

Explanation: A logic error occurred while reading from file *file_name*.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. 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.

5019-043 S: Cannot open input file because of an error.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-044 S: Cannot open file *file_name* (error *ReturnCode*)*....msg*.

Explanation: RICOH InfoPrint XT cannot open the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file or the directory that contains the file and correct the problem. Then, issue the command again.

5019-045 S: Cannot read input file because of an error.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-046 S: Cannot read file *file_name* (error *ReturnCode*)*....msg*.

Explanation: RICOH InfoPrint XT cannot read the file identified in the message. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then issue the command again.

5019-047 S: Cannot parse internal date/time information (error *ReturnCode*)*....msg*.

Explanation: An internal error occurred during date/time processing. The message provides additional information about why the action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-048 S: Cannot write to output file because of an error.

Explanation: An internal RICOH InfoPrint XT error occurred.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-049 S: Cannot write to file *file_name* (error *ReturnCode*)*....msg*.

Explanation: RICOH InfoPrint XT cannot write to the file identified in the message. The message provides additional information about why the open action failed.

System action: RICOH InfoPrint XT could not 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.

5019-051 U: Data stream converter processing stopped because of unrecoverable errors.

Explanation: The conversion process ended abnormally. Previous messages give the reason for abnormal end of the process.

5019-054 U: Processing ended with return code: *nn*.

Explanation: This informational message indicates the return code from data stream processing. It requires no user response.

5019-060 I: The data stream converter processes the input file using this type of carriage control characters: *cc_type*.

Explanation: RICOH 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. *cc_type* is either:

- ISO/ANSI/FIPS
- IBM3211

IBM3211 is the same as machine code.

System action: RICOH 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.

5019-071 I: Reading reformatted Xerox resource dump parameters.

Explanation: This is an informational message that indicates that RICOH InfoPrint XT has begun to read the reformatted Xerox resource dump parameters. It requires no user response.

5019-080 S: UNDEFINEDFILE condition raised on file: *file_name*, ONCODE: *nn*. Check the path or file: *name*.

Explanation: RICOH 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 **xrecfm** 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.

5019-081 S: RECORD condition raised on file: *file_name*, ONCODE: *nn*. Check the file attributes for file: *file_name*.

Explanation: The named file (*file_name*) has an incorrect record format (**xrecfm=**) or record length (**xlrecl=**) specified by the conversion parameters for the job.

System action: RICOH 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. If the problem continues, report this message to your technical support representative.

5019-090 W: The data stream converter found a print position indexing byte in an FCB that specifies a right index to this position: *nn*. The converter ignores the PPI byte.

Explanation: RICOH InfoPrint XT found an FCB that included the print position indexing (PPI) byte. The PPI byte of an FCB causes a shift in the printed output to the right of the position specified in the message. RICOH InfoPrint XT ignores the PPI and does not shift the printed output.

System action: RICOH InfoPrint XT continues processing the job, but the printed output might not be correct.

User response: RICOH InfoPrint XT does not support the PPI shift function. If the job requires a shift in the printed output, use a supported method to cause the shift action. Otherwise, contact your technical support representative.

5019-091 W: The data stream converter found a print position indexing byte in an FCB that specifies a left index to this position: *nn*. The converter ignores the PPI byte.

Explanation: RICOH InfoPrint XT found an FCB that included the print position indexing (PPI) byte. The PPI byte of an FCB causes a shift in the printed output to the left of the position specified in the message. RICOH InfoPrint XT ignores the PPI and does not shift the printed output.

System action: RICOH InfoPrint XT continues processing the job, but the printed output might not be correct.

User response: RICOH InfoPrint XT does not support the PPI shift function. If the job requires a shift in the printed output, use a supported method to cause the shift action. Otherwise, contact your technical support representative.

5019-100 W: Resource conversion for inline resource: *resource_name* ended with return code: *nn*. The resource is not used.

Explanation: RICOH InfoPrint XT cannot dynamically load the resource that the message identifies. A FILE DJDE in the job specified the resource.

System action: RICOH 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**. Depending on your operating system platform, restart the system or log out and log back in 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.

5019-132 W: The data stream converter does not support ONEPASS with *param_name*. Conversion will use TWOPASS.

Explanation: RICOH InfoPrint XT only supports TWOPASS data stream processing.

System action: RICOH InfoPrint XT continues processing the job.

User response: Correct the parameter and reconvert the job.

5019-133 W: The data stream converter does not support XCSMMNAME=YES with XMEDIATYPES | XBINERROR=STOP | XBINERROR=CONTINUE. Conversion will use XMEDIATYPES=NONE | XBINERROR=IGNORE | XBINERROR=IGNORE.

Explanation: You specified the **xcsmmname = yes** parameter and another parameter which is incompatible with content-sensitive medium map names processing.

System action: RICOH InfoPrint XT replaces the incompatible parameter.

User response: Correct the parameter and reconvert the job.

5019-140 E: The data stream converter cannot create a unique content-sensitive medium map name because of one or more Xerox commands: *command_names*. The converter used 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: RICOH 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**.

5019-150 E: The data stream converter cannot find or validate reformatted Xerox FRM resource: *reformatted_form_name* in the metrics directory and cannot use fonts from *form_name*.

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. RICOH InfoPrint XT cannot use any fonts that the form specifies and the printed output might not be correct.

System action: RICOH InfoPrint XT continues processing the job.

User response: Reload the form and reconvert the job.

5019-151 E: The transform cannot identify AFP fonts and page segments from form: *form_name*. Reload the form to verify resource availability.

Explanation: RICOH 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: RICOH 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.

5019-152 E: Overlay: *overlay_name* does not match the overlay that was available when the transform converted resource: *resource_list_name*.

Explanation: RICOH InfoPrint XT found that overlay *overlay_name* has changed since the last time it was loaded.

System action: RICOH 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*.

5019-153 E: The data stream converter detected one or more missing overlays or overlay resources. Data stream conversion to AFP might be successful, but the AFP file does not print correctly. Load the missing resources to make sure the output is correct.

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: RICOH 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.

5019-154 S: The data stream converter cannot 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: RICOH 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.

5019-160 E: The transform found a relative move in the dot direction with no preceding absolute move on page: *nn* at logical record: *nn*.

Explanation: Before the print position was established, RICOH InfoPrint XT found characters to print or relative moves in a metacode print control record.

System action: RICOH 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 command.

5019-162 W: The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font: *font_name*, on page: *nn*, at logical record *nn*. Of *nn* active fonts, font: *font_name* is number: *nn* and there are no graphic fonts in the active font list.

Explanation: RICOH InfoPrint XT found a character-reshaping metacode print control sequence, but a nongraphic font was in effect. The message indicates that no graphic fonts were active.

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 rerun the job.

5019-163 W: The transform detected an attempt to reshape graphic characters by using nongraphic Xerox font: *font_name*, on page: *nn*, at logical record: *nn*. Of *nn* active fonts, font: *font_name* is number: *nn*. Active graphic fonts include *graphic_font1* (number *nn*), *graphic_font2* (number *nn*), and *graphic_font3* (number *nn*).

Explanation: RICOH InfoPrint XT found a character-shaping metacode print control sequence that specified a nongraphic font. The message lists up to three active graphic fonts and shows the position of each graphic font in the active font list.

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.

5019-164 E: A translation error occurred while processing input character: X'*input_hex*' at logical record: *nn*. Code page: *code_page* does not contain EBCDIC character: X'*EBCDIC_hex*'. The transform substituted a blank. This is the original Xerox font: *font_name*.

Explanation: While processing metacode print controls, RICOH 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*, RICOH 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: RICOH InfoPrint XT continues processing the job, but the output is not correct.

User response: Correct the input data or correlation and rerun the job.

5019-165 E: RICOH InfoPrint XT found an incorrect repeat sequence on record: *nn*. The transform ignored the repeat command.

Explanation: RICOH InfoPrint XT found an error during repeat command processing at the location identified in the message.

System action: RICOH InfoPrint XT ignores the repeat command.

User response: Correct the repeat command. Then, submit the job and convert it again.

5019-170 E: The data stream converter did not find font information for this AFP DBCS coded font: *coded_font_name*. Characters print as blanks.

Explanation: RICOH InfoPrint XT did not process DBCS information for *coded_font_name*.

System action: RICOH 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.

5019-180 S: While processing graphic image: *image_name*, the data stream converter could not find the image correlation table in the reformatted Xerox resource path, or the table contains no entries.

Explanation: RICOH 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 specified 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.

5019-181 W: The data stream converter ignored a DJDE identifier on record: *nn:DJDE_record*.

Explanation: RICOH InfoPrint XT ignored the DJDE record *DJDE_record*, which it considers to be extraneous.

System action: RICOH 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. You can also specify the **xconsecutivedjde** parameter to control whether InfoPrint XT ignores or processes the DJDE identifier, or the **xwarnrc** parameter to control the ending return code associated with warning messages.

5019-182 W: The data stream converter ignored a DJDE identifier on record: *nn:DJDE_record* (downloadable PDE - fonts will not be used).

Explanation: RICOH InfoPrint XT ignored the DJDE record *DJDE_record*, which it considers to be extraneous. The DJDE record is a downloadable PDE (FORMAT=*) and *DJDE_record* contains a message that indicates that RICOH InfoPrint XT did not use the fonts listed in the downloadable PDE.

System action: RICOH 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. You can also specify the **xconsecutivedjde** parameter to control whether RICOH InfoPrint XT ignores or processes the DJDE identifier, or the **xwarnrc** parameter to control the ending return code associated with warning messages.

5019-190 I: GRAPHIC - The data stream converter does not support the INKS option.

Explanation: RICOH InfoPrint XT ignored the DJDE record *djde_record*, which it considers to be extraneous. The DJDE record is a downloadable PDE (FORMAT=*) and *djde_record* contains a message that indicates that RICOH InfoPrint XT did not use the fonts listed in the downloadable PDE.

System action: RICOH InfoPrint XT issues this message when it finds the INKS option present on a GRAPHIC DJDE. RICOH InfoPrint XT does not support this use of color.

User response: RICOH InfoPrint XT prints the corresponding output in monochrome. This message requires no user response.

5019-191 W: 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: RICOH InfoPrint XT processes the data stream using COLLATE=YES.

User response: Correctly place the COLLATE DJDE in the input file and reconvert the job.

5019-192 W: The data stream converter ignored an incorrect COLLATE change request.

Explanation: The COLLATE DJDE that RICOH InfoPrint XT found is not valid after the first data record of the report.

System action: RICOH InfoPrint XT continues processing the job.

User response: Correctly place the COLLATE DJDE in the input file and reconvert the job.

5019-193 E: *DJDE_name* - The DJDE value: *value* is not valid for the specified conversion units.

Explanation: RICOH InfoPrint XT cannot process the value *value* correctly. For units such as IN (inches) or CM (centimeters), RICOH InfoPrint XT expects no more than three decimal places. For DOTS, RICOH InfoPrint XT expects an integer value.

System action: RICOH 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.

5019-194 E: *DJDE_name* - The DJDE value: *value* is not valid for a numeric entry field.

Explanation: RICOH InfoPrint XT cannot process the value *value* correctly. RICOH InfoPrint XT does not process the DJDE (*DJDE_name*). DJDE naming conventions require a numeric entry with specific rounding values.

System action: RICOH InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the value and reconvert the job.

5019-195 E: *DJDE_name* - The DJDE option: *option_name* is not valid.

Explanation: The *option_name* option of the *DJDE_name* DJDE is not valid.

System action: RICOH InfoPrint XT ignores the DJDE keyword and continues processing.

User response: Correct the DJDE and reconvert the job.

5019-196 E: 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: RICOH 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.

5019-197 E: The data stream converter cannot find graphic image: *resource_name* in the image correlation table and it did not process this DJDE command: *command*.

Explanation: The named resource, *resource_name*, was not found. The resource name might be misspelled. The resource might not be loaded on the RICOH InfoPrint XT server or it might have been loaded as a resource that belongs to a specific resource group.

System action: RICOH 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.

5019-198 E: The data stream converter found an 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: RICOH 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.

5019-199 W: 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: RICOH 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.

5019-200 W: The data stream converter ignored page-oriented keywords in the DJDE packet on record: *nn* because of 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 packet of page-oriented DJDEs to each page. The converter ignores all packets after the first packet.

System action: RICOH 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. Then, reconvert the job.

5019-201 W: The data stream converter found a GRAPHIC= DJDE with no options. There was no preceding IMAGE= DJDE that used the T option. 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 RICOH 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. RICOH InfoPrint XT found no prior matching IMAGE DJDE.

System action: RICOH 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.

5019-202 E: The number of inline graphics exceeded the maximum of 1,000,000. Inline graphics overlay existing images.

Explanation: RICOH InfoPrint XT tracks page segments that correspond to inline graphics using the naming convention SG*nnnnnn*. *nnnnnn* 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), RICOH InfoPrint XT begins using previous names, starting with SG000000. RICOH InfoPrint XT replaces the page segments associated with the reused names.

System action: RICOH 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.

5019-210 E: FILE - The data stream converter does not support inline files in the 80-byte card-image format (file input format parameter C) and might 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 all FILE DJDEs specify a file input format parameter of L. Then, rerun the job.

5019-211 E: The data stream converter found incorrect font enlargement factors: * *enlargement_vertical* * *enlargement_horizontal* on record: *nn* 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: RICOH InfoPrint XT ignores the specified enlargement factor.

User response: Correct the font enlargement factor. Then, submit the job and convert it again.

5019-212 E: The data stream converter cannot find image: *image_name* in the reformatted Xerox resource path.

Explanation: While processing a Xerox data stream, RICOH InfoPrint XT determined that the data stream referenced a Xerox IMG, *image_name*, which is not loaded on the system.

System action: RICOH 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.

5019-220 I: FEED - The data stream converter interprets 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: RICOH InfoPrint XT continues to process the job.

User response: This is an informational message that requires no user response.

5019-221 E: The data stream converter cannot find FEED cluster name: *cl_name* in reformatted cluster database: *clb_name*. This occurred while processing the DJDE packet that ends on record: *nn*.

Explanation: A cluster name in a FEED DJDE has no corresponding entry in cluster database *clb_name*. RICOH 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.

5019-222 E: The data stream converter cannot find FEED cluster name: *cl_name* in reformatted cluster database: *clb_name*. This occurred while processing JDL and JDE pair: *JDL_name/JDE_name*.

Explanation: A FEED command in a JDE and JDL pair refers to a cluster, *cl_name*, which has no corresponding entry in cluster database *clb_name*.

System action: RICOH 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.

5019-223 E: The data stream converter cannot find FEED stock reference: *STK_reference* in STOCKSET: *STK_name*. This occurred while processing the DJDE packet that ends on record: *nn*.

Explanation: Stock reference *STK_reference* in a FEED DJDE has no corresponding entry in the STOCKSET identified in the message.

System action: RICOH 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.

5019-224 E: The data stream converter cannot find FEED stock reference: *STK_reference* in a STOCKSET internal to a JDL and JDE pair. This occurred while processing the DJDE packet that ends on record: *nn*.

Explanation: Stock reference *STK_reference* in a FEED DJDE has no corresponding entry in the STOCKSET identified in the message.

System action: RICOH 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.

5019-225 E: The data stream converter cannot find FEED stock reference: *STK_reference* in STOCKSET: *STK_name* called by a JDL and JDE pair. This occurred while processing a DJDE packet that ends on record: *nn*.

Explanation: Stock reference *STK_reference* in a FEED DJDE has no corresponding entry in the STOCKSET identified in the message.

System action: RICOH 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.

5019-226 E: The data stream converter cannot find FEED stock reference: *STK_reference* in an internal STOCKSET. This occurred while it processed JDL and JDE pair: *JDL_name/JDE_name*.

Explanation: A FEED command in a JDL and JDE pair specifies a stock reference, *STK_reference*, which has no corresponding entry in an internal STOCKSET.

System action: RICOH 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.

5019-227 E: The data stream converter cannot find FEED stock reference: *STK_reference* in external STOCKSET: *STK_name*. This occurred while it processed JDL and JDE pair: *JDL_name/JDE_name*.

Explanation: A FEED command in a JDL and JDE pair specifies a stock reference, *STK_reference*, which has no corresponding entry in an external STOCKSET.

System action: RICOH 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.

5019-228 E: FEED command in DJDE packet that ends on record: *nn* specified stock reference: *STK_reference*, but no STOCKSET is in use. The data stream converter cannot resolve the stock reference.

Explanation: A FEED DJDE specifies a stock reference, *STK_reference*, but no STOCKSET is in effect. RICOH InfoPrint XT ignores the FEED DJDE command.

System action: RICOH 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.

5019-229 E: FEED command in JDL and JDE pair: *JDL_name/JDE_name* specified stock reference: *STK_reference*, but no STOCKSET is in use. The data stream converter cannot resolve the stock reference.

Explanation: A FEED command in a JDL and JDE pair specifies a stock reference, *STK_reference*, but no STOCKSET is in effect.

System action: RICOH 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.

5019-240 E: A translation error occurred while processing input character: X'*EBCDIC_hex*' (ASCII X'*ASCII_hex*') at logical record: *nn*. Code page: *code_page* does not contain EBCDIC character: X'*EBCDIC_hex*'. The data stream converter substituted a blank. This is the original Xerox font: *font_name*.

Explanation: While processing line data input, RICOH InfoPrint XT found that EBCDIC character X'*EBCDIC_hex*' was not available in code page *code_page*. RICOH 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: RICOH InfoPrint XT continues the process, but the output might not be correct.

User response: Correct the input data correlation table or translation record. Then, reconvert the job.

5019-241 S: The input data stream file is empty. The data stream converter cannot produce printable AFP output.

Explanation: RICOH InfoPrint XT did not find any input data in the Xerox job file.

System action: Although RICOH 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 RICOH InfoPrint XT system again.

5019-242 E: The data stream converter found a shift-in function code before a shift-out function code on record *nn*.

Explanation: While processing the input data stream, RICOH InfoPrint XT found a shift-in function code but did not find a preceding shift-out function code. There are errors in the input data stream.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Correct the input data stream and convert the job again.

5019-243 E: The data stream converter did not find a shift-in function code that corresponded to a preceding shift-out function code on record *nn*.

Explanation: While processing the input data stream, RICOH InfoPrint XT found a shift-in function code but did not find a preceding shift-out function code. There are errors in the input data stream.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Correct the input data stream and convert the job again.

5019-244 E: The data stream converter found a duplicate shift-out function code on record *nn*.

Explanation: While processing the input data stream, RICOH InfoPrint XT found more than one shift-out function code in succession. There are errors in the input data stream.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Correct the input data stream and convert the job again.

5019-245 E: The data stream converter did not find a DBCS font labeled 'K1' in the active font list while processing record *nn*.

Explanation: While processing the input data stream, RICOH InfoPrint XT found a shift-out function code but did not find a DBCS font labeled 'K1' in the active font list.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Make sure that the DJDEs in the input data stream or the JDEs used to process the data stream contain a DBCS font with a 'K1' label. Then, reconvert the job.

5019-246 E: The data stream converter did not find a DBCS font labeled *'kanji_label'* in the active font list while processing record *nn*.

Explanation: While processing the input data stream, RICOH InfoPrint XT found a function code that specified font label *kanji_label*, but did not find a DBCS font with that label in the active font list.

System action: RICOH InfoPrint XT cannot process the input data stream.

User response: Make sure that the DJDEs in the input data stream or the JDEs used to process the data stream contain a DBCS font with the specified Kanji label. Then, reconvert the job.

5019-250 E: The data stream converter cannot 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 **tiff2afp** transform.

System action: RICOH 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.

5019-251 E: The tiff2afp transform returned error code: *nn* while processing inline graphic number: *graphic_nn*.

Explanation: Conversion of an inline TIFF graphic failed. *nn* is the return code from the **tiff2afp** transform program. *graphic_nn* uses the naming convention SG*nnnnnn*. *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: RICOH 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.

5019-260 E: An internal error: *error* occurred while the converter processed inline graphic number: *nn*.

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: RICOH 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.

5019-261 E: The image converter returned error code: *error_code* from processing inline graphic number: *graphic_number* that ended near record: *record_number*.

Explanation: Conversion of an inline image graphic failed. *error_code* is the return code from the image transform program. *graphic_number* uses the naming convention SG*nnnnnn*. *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. *record_number* is the approximate record number of the end of the inline graphic image in the input file.

System action: RICOH 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.

5019-262 U: A memory allocation error occurred in the image and logo converter while it processed inline graphic number: *nn*.

Explanation: Conversion on an inline image graphic failed because of insufficient memory. The image graphic uses the naming convention SG*nnnnnn*. *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: RICOH 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.

5019-263 I: RICOH InfoPrint XT found *total_images* inline graphic images. Of these, *unique_images* were unique and *duplicate_images* were duplicates.

Explanation: While converting a data stream with the **xckdupnlimg=yes** parameter, RICOH InfoPrint XT found one or more duplicate inline graphic images. This informational message indicates totals for the all inline graphic images in the input data stream, the number of unique inline graphic images, and the number of duplicate inline graphic images. RICOH InfoPrint XT converted each of the unique inline graphic images only once, rather than converting all of the duplicate inline graphic images.

System action: RICOH InfoPrint XT continues to process the job.

User response: This message requires no user response.

5019-270 W: The data stream converter found an incorrect or unsupported Xerox file type in the downloadable file: *file_name.file_type* (internal name X'*hex_name*') on record: *nn*. The file prints as data.

Explanation: The RICOH 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: RICOH 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 corrupted, correct the error or errors, regenerate the file, and rerun the job.

5019-271 E: The data stream converter did not find the expected end of an inline graphic on record: *nn*. Inline graphic number: *nn* might be corrupted. The graphic and the data that follows it might not print correctly.

Explanation: While processing an inline graphic in an offline job, RICOH 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, RICOH InfoPrint XT might have read through some of the data that immediately follows the graphic, causing incorrect output.

System action: RICOH 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.

5019-280 E: FONTS - 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 ($).

System action: RICOH InfoPrint XT cannot process the font.

User response: Correct the name of the font identified in the message and do the action again.

5019-281 E: 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 ($).

System action: RICOH InfoPrint XT cannot process the font.

User response: Correct the name of the font identified in the message and do the action again.

5019-282 W: The data stream converter found no 'END;' DJDE command before the end of the report.

Explanation: RICOH InfoPrint XT found the end of a report before it found a DJDE record that contained the END; command. RICOH InfoPrint XT does not process DJDEs that it finds after the end of the report.

System action: RICOH 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.

5019-290 E: The data stream converter cannot print an accounting page because of 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 RICOH InfoPrint XT can access it.

5019-300 W: The data stream converter collected: *nn* sheets for stapling. This total might 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.

5019-301 W: The data stream converter collected: *nn* 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 and JDE pair 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.

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5019-302 W: XHONORSTAPLE is in effect, but the reformatted JDL: *JDL_name* and JDE: *JDE_name* pair does not include stapling information. The converter disabled stapling for the current report.

Explanation: Although you requested that RICOH InfoPrint XT process Xerox stapling commands, you did not reload the JDL and JDE pair in effect after stapling support became available in RICOH InfoPrint XT. Because RICOH 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. RICOH InfoPrint XT does not include stapling commands in the AFP that it generates for this report.

System action: RICOH InfoPrint XT continues to process the job, but the printer does not staple the pages in the current report.

User response: Reload the JDL that the job uses for RICOH InfoPrint XT to process stapling commands. Then, reconvert the job.

5019-310 E: A text placement item specified font number: *nn*, but the maximum number of fonts per page is 128.

Explanation: One page specified more than 128 fonts.

System action: RICOH 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. Then, reconvert the job.

5019-311 S: A text placement item specified font number: *nn*, but the number in the active font list is: *nn*.

Explanation: RICOH InfoPrint XT tried to process AFP text placement items using the wrong font list.

System action: RICOH InfoPrint XT cannot process the request.

User response: Contact your technical support representative.

5019-320 E: The font processor cannot find font: *font_name* in the font correlation table.

Explanation: RICOH 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: RICOH InfoPrint XT cannot process the request.

User response: Use the **pdxtloadres** command to load the font identified in the message.

5019-321 S: No fonts are available to print the 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: RICOH 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.

5019-322 E: The font processor cannot find reformatted font: *font_name* in the reformatted Xerox resource path.

Explanation: RICOH InfoPrint XT did not find the metrics file for the named font in the reformatted Xerox resource path. It was looking for *font_name***.afn**.

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the **pdxtloadres** command to load the font identified in the message.

5019-323 E: The font processor cannot find font resource: *resource_name* in the AFP resource path.

Explanation: While loading a form, RICOH InfoPrint XT did not find the AFP font listed in the message.

System action: RICOH 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 RICOH InfoPrint XT. If the AFP font is a font that RICOH InfoPrint XT created from a Xerox font, reload the Xerox font. If the problem continues or if RICOH supplied the font, report this message to your technical support representative.

5019-324 E: 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: RICOH 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 RICOH supplied the font or if RICOH InfoPrint XT created the font from a Xerox font, report this message to your technical support representative.

5019-325 S: The font processor cannot find character translation table: *table_name* in the reformatted Xerox resource path.

Explanation: RICOH 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 message can indicate a syntax error in the correlation record. Make sure that the correlation record is correct and rebuild the correlation table. Otherwise, this message indicates an internal error in RICOH InfoPrint XT. Report this message to your technical support representative.

5019-326 E: Font resource: *resource_name* does not contain a required character rotation.

Explanation: An AFP font resource is incomplete.

System action: RICOH InfoPrint XT cannot process the resource.

User response: Reload the corresponding Xerox resource.

5019-327 S: The font processor cannot find the font correlation table in the reformatted Xerox resource path, or the table contains no entries.

Explanation: RICOH 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.

5019-328 E: 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: *font_name*, is correlated to coded font: *coded_font*.

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 RICOH supplied the font or if RICOH InfoPrint XT created the font from a Xerox font, report this message to your technical support representative.

5019-329 E: Character ID: *character_id* (EBCDIC code point X'*EBCDIC_hex*') in code page: *code_page* is not in character set: *character_set*. This is the original Xerox font: *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 RICOH supplied the font or if RICOH InfoPrint XT created the font from a Xerox font, report this message to your technical support representative.

5019-340 S: A resource processor cannot find reformatted JDL: *JDL_name* in the reformatted Xerox resource path.

Explanation: RICOH 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.

5019-341 S: A resource processor cannot find JDE: *JDE_name* in the reformatted JDL: *JDL_name*.

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 RICOH InfoPrint XT system in the common resource library or in a resource group available to the job. Then, reconvert the job.

5019-342 E: A resource processor cannot find type: *cl_type* cluster name: *cl_name* in reformatted cluster database: *clb_name*. This occurred while processing a STOCKSET that is internal to the JDL and JDE pair: *JDL_name/JDE_name*.

Explanation: The STOCKSET that RICOH 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.

5019-343 E: A resource processor could not find type: *cl_type* cluster name: *cl_name* in reformatted cluster database: *clb_name*. This occurred while processing external STOCKSET: *STK_name* in the JDL and JDE pair: *JDL_name/JDE_name*.

Explanation: The STOCKSET that RICOH 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.

5019-344 E: A resource processor cannot find type: *cl_type* cluster name: *cl_name* in reformatted cluster database: *clb_name*. This occurred while processing STOCKSET: *STK_name* in the DJDE packet that ends on record: *nn*.

Explanation: A stock reference in a FEED DJDE or in external STOCKSET *STK_name* 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.

5019-350 S: Processing stopped because one or more unsupported BLOCK | RECORD command functions were found in JDL or JDE: *JDL_name* | *JDE_name*: *function*

Explanation: RICOH InfoPrint XT can not process the job because it uses the unsupported function FORMAT^=BIN or LMULT^=1.

System action: The process fails.

User response: If the JDL and JDE pair is essential to printing operations, report this message to your technical support representative.

5019-351 S: Processing stopped because unsupported *function_name* command functions were found in JDL or JDE: *JDL_name* | *JDE_name*

Explanation: RICOH InfoPrint XT can not process the job because it uses the unsupported function FORMAT^=BIN or LMULT^=1.

System action: The process fails.

User response: If the JDL and JDE pair is essential to printing operations, report this message to your technical support representative.

5019-360 E: A resource processor cannot find reformatted type: *resource_type* for resource: *resource_name* in the reformatted Xerox resource path.

Explanation: *resource_type* can be CME, PDE, STK, or TST. RICOH InfoPrint XT did not find the named resource *resource_name* in the reformatted Xerox resource directory.

System action: RICOH 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 RICOH InfoPrint XT and reconvert the job.

5019-370 W: XHONORFCB2 is in effect, but reformatted JDL: *JDL_name* | JDE: *JDE_name* does not include FCB information. The data stream converter ignores FCBs found in the data stream.

Explanation: Although you requested that RICOH InfoPrint XT process FCBs, you did not reformat the JDL and JDE pair in effect after FCB support became available. Because RICOH InfoPrint XT cannot determine whether the original Xerox JDL and JDE specified FCB=PROCESS or FCB=IGNORE, it uses FCB=IGNORE and does not process any FCBs in the data stream.

System action: RICOH InfoPrint XT continues processing the job, but the printed output is not correct.

User response: Reload the JDL that the job uses. RICOH InfoPrint XT creates a new metrics file for the JDL, which includes information that enables it to process FCBs. After you reload the JDL, reconvert the job.

5019-380 E: Correlation of Xerox DBCS font: *font_name* to non-DBCS AFP font resource: *resource_name* is not valid.

Explanation: During AFP font processing, RICOH InfoPrint XT found a correlation between a Xerox DBCS font and an AFP single-byte font. RICOH InfoPrint XT does not support this type of correlation.

System action: RICOH 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, rerun the **pdxtloadres** command to rebuild the font correlation table.

5019-381 E: Reformatted font information for Xerox font: *font_name* is not complete. Reload the resource to extract and store DBCS information.

Explanation: During AFP font processing, RICOH InfoPrint XT determined that the reformatted Xerox font metrics file for *font_name* does not contain DBCS information.

System action: RICOH InfoPrint XT cannot process the font.

User response: Reload the Xerox DBCS font. Then, reconvert the job.

5019-400 U: A file access error with return code: *nn* occurred during the action: INIT. The error occurred for DDNAME: *dd_name* and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-401 U: A file access error with return code: *nn* occurred during the action: INIT. The error occurred for DDNAME: UNKNOWN and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-402 U: A file access error with return code: *nn* occurred during the action: INIT. The error occurred for DDNAME: *dd_name* and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-403 U: A file access error with return code: *nn* occurred during the action: INIT. The error occurred for DDNAME: UNKNOWN and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-404 U: A file access error with return code: *nn* occurred during the action: OPEN. The error occurred for DDNAME: *dd_name* and file: *file_name*...*msg*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-405 U: A file access error with return code: *nn* occurred during the action: OPEN. The error occurred for DDNAME: UNKNOWN and file: *file_name*...*msg*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-406 U: A file access error with return code: *nn* occurred during the action: OPEN. The error occurred for DDNAME: *dd_name* and file: UNKNOWN...*msg*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-407 U: A file access error with return code: *nn* occurred during the action: OPEN. The error occurred for DDNAME: UNKNOWN and file: UNKNOWN…*msg*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-408 U: A file access error with return code: *nn* occurred during the action: READ. The error occurred for DDNAME: *dd_name* and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-409 U: A file access error with return code: *nn* occurred during the action: READ. The error occurred for DDNAME: UNKNOWN and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-410 U: A file access error with return code: *nn* occurred during the action: READ. The error occurred for DDNAME: *dd_name* and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-411 U: A file access error with return code: *nn* occurred during the action: READ. The error occurred for DDNAME: UNKNOWN and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-412 U: A file access error with return code: *nn* occurred during the action: WRITE. The error occurred for DDNAME: *dd_name* and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-413 U: A file access error with return code: *nn* occurred during the action: WRITE. The error occurred for DDNAME: UNKNOWN and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-414 U: A file access error with return code: *nn* occurred during the action: WRITE. The error occurred for DDNAME: *dd_name* and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-415 U: A file access error with return code: *nn* occurred during the action: WRITE. The error occurred for DDNAME: UNKNOWN and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-416 U: A file access error with return code: *nn* occurred during the action: CLOSE. The error occurred for DDNAME: *dd_name* and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-417 U: A file access error with return code: *nn* occurred during the action: CLOSE. The error occurred for DDNAME: UNKNOWN and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-418 U: A file access error with return code: *nn* occurred during the action: CLOSE. The error occurred for DDNAME: *dd_name* and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-419 U: A file access error with return code: *nn* occurred during the action: CLOSE. The error occurred for DDNAME: UNKNOWN and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-420 U: A file access error with return code: *nn* occurred during the action: TERM. The error occurred for DDNAME: *dd_name* and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-421 U: A file access error with return code: *nn* occurred during the action: TERM. The error occurred for DDNAME: UNKNOWN and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-422 U: A file access error with return code: *nn* occurred during the action: TERM. The error occurred for DDNAME: *dd_name* and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-423 U: A file access error with return code: *nn* occurred during the action: TERM. The error occurred for DDNAME: UNKNOWN and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-424 U: A file access error with return code: *nn* occurred during the action: TRACK. The error occurred for DDNAME: *dd_name* and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-425 U: A file access error with return code: *nn* occurred during the action: TRACK. The error occurred for DDNAME: UNKNOWN and file: *file_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-426 U: A file access error with return code: *nn* occurred during the action: TRACK. The error occurred for DDNAME: *dd_name* and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-427 U: A file access error with return code: *nn* occurred during the action: TRACK. The error occurred for DDNAME: UNKNOWN and file: UNKNOWN.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-430 U: A program or operating system error has occurred. The internal diagnostic information is: ON-ERROR: ONCODE *nn*

Explanation: A logic error occurred. RICOH 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.

5019-431 U: A program or operating system error has occurred. The internal diagnostic information is: The Medium Map Descriptor Item address is not correct. Program area: *program_area*.

Explanation: A logic error occurred. RICOH 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.

5019-432 U: A program or operating system error has occurred. The internal diagnostic information is: The Medium Map Descriptor Item address is not correct. Program area: *program_area*.

Explanation: A logic error occurred in the resource utility program. RICOH 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.

5019-433 U: A program or operating system error has occurred. The internal diagnostic information is: The SIDE code is not correct. SIDE code: *code*.

Explanation: A logic error occurred. RICOH 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.

5019-434 U: A program or operating system error has occurred. The internal diagnostic information is: The parsing token number is not correct. Number: *DJDE_nn*.

Explanation: A logic error occurred. RICOH 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.

5019-435 U: A program or operating system error has occurred. The internal diagnostic information is: The print control value: X'*hex_value*' was not recognized on page: *page_nn* for logical record: *record_nn*.

Explanation: A logic error occurred. RICOH 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.

5019-436 U: A program or operating system error has occurred. The internal diagnostic information is: The absolute print position is not set on page: *page_nn* for logical record: *record_nn*.

Explanation: A logic error occurred. RICOH 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.

5019-437 U: A program or operating system error has occurred. The internal diagnostic information is: The font orientation value: *orientation* was not recognized on page: *page_nn* for logical record: *record_nn* of Xerox font: *font_name*.

Explanation: A logic error occurred. RICOH 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.

5019-438 U: A program or operating system error has occurred. The internal diagnostic information is: The intermediate text item address is not correct. Program area: *program_area*.

Explanation: A logic error occurred. RICOH 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.

5019-439 U: A program or operating system error has occurred. The internal diagnostic information is: The report item address is not correct. Program area: *program_area*.

Explanation: A logic error occurred. RICOH 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.

5019-440 U: A program or operating system error has occurred. The internal diagnostic information is: The value for the text placement identifier is not correct. Value: *value*. Program area: *program_area*.

Explanation: A logic error occurred. RICOH 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.

5019-441 U: A program or operating system error has occurred. The internal diagnostic information is: The font orientation value: *orientation* is not correct for Xerox font: *font_name*. Program area: *program_area*.

Explanation: A logic error occurred. RICOH 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.

5019-442 U: A program or operating system error has occurred. The internal diagnostic information is: The number of referenced page segments is not correct. Number of referenced page segments: *nn*.

Explanation: A logic error occurred. RICOH 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.

5019-443 U: A program or operating system error has occurred. The internal diagnostic information is: The RPAGE side indicator is not correct. RPAGE side indicator code: *side_code*.

Explanation: A logic error occurred. RICOH 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.

5019-450 I: Usage: aiocifd [-f *path/font_name*] | -h | -?

Explanation: This is an informational message that indicates the correct parameters for the font analyzer. It requires no user response.

5019-451 S: Missing or incorrect arguments.

Explanation: The font analyzer found a parameter that it did not recognize.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-452 S: The font analyzer cannot find or open font: *font_name*.

Explanation: The font analyzer did not find the *font_name* font. The resource name might be incorrect, or it might not be available on the system.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the entry is correct and that the font resource exists. Then, rerun the command. Otherwise, report this message to your technical support representative.

5019-453 S: Font: *font_name* is not a valid Xerox font.

Explanation: The font analyzer found an error in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5019-454 S: Font: *font_name* contains this unknown extension value: X'*extension_value*'.

Explanation: The font analyzer did not recognize the extension value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5019-455: Font: *font_name* contains this unknown orientation value: X'*orientation_value*'.

Explanation: The font analyzer did not recognize the orientation value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5019-456 S: Font: *font_name* contains this unknown font type value: X'*font_type_value*'.

Explanation: The font analyzer did not recognize the font type value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again. If the problem continues, report this message to your technical support representative.

5019-457 S: The font analyzer ended with this internal code: *error_code*.

Explanation: The font analyzer found an internal error during font processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-458 I: Font: *font_name* is a Xerox SBCS font.

Explanation: This is an informational message that indicates that RICOH InfoPrint XT found a Xerox single-byte character set font. It requires no user response.

5019-459 S: Font: *font_name* contains this unsupported font type value: X'00'.

Explanation: RICOH InfoPrint XT does not support this type of font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again. If the problem continues, report this message to your technical support representative.

5019-460 S: Font: *font_name* is a Xerox EBCDIC font.

Explanation: This is an informational message that indicates that RICOH InfoPrint XT found a Xerox EBCDIC font. It requires no user response.

5019-461 I: Font: *font_name* is a Xerox DBCS font that uses this type of encoding: *encoding_type*.

Explanation: This is an informational message that indicates that RICOH InfoPrint XT found a Xerox double-byte character set font. It requires no user response.

5019-462: Font: *font_name* contains this unknown DBCS font type value: X'*font_type_value*'.

Explanation: The font analyzer did not recognize the DBCS font type value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again.

5019-463: Font: *font_name* contains this unknown encoding type value: X'*encoding_type_value*'.

Explanation: The font analyzer did not recognize the encoding type value in the *font_name* font.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and make sure that it is not corrupted. Then, do the operation again. If the problem continues, report this message to your technical support representative.

5019-470 I: Usage: xrhdr | -i | -t | -? [*path/resource_name*]

Explanation: This is an informational message that indicates the correct parameters for the resource header utility.

5019-471 S: Missing or incorrect arguments.

Explanation: The resource header utility found a parameter that it did not recognize.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-472 I: The resource header utility modified resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility modified a resource header. It requires no user response.

5019-473 I: The resource header utility added a header to resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility created a resource header. It requires no user response.

5019-474 S: The resource header utility cannot find resource: *resource_name*.

Explanation: The resource header utility did not find the *resource_name* resource. The resource name might be incorrect, or it might not be available on the system.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the entry is correct and that the resource exists. Then, rerun the command. Otherwise, report this message to your technical support representative.

5019-475 S: The resource header utility cannot access resource: *resource_name*.

Explanation: The permissions for resource *resource_name* do not let the resource header utility access the resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the entry is correct and that the resource exists. Then, rerun the command. Otherwise, report this message to your technical support representative.

5019-476 S: A memory allocation error occurred in the resource header utility while it processed resource: *resource_name*.

Explanation: Header processing for *resource_name* resource failed because of insufficient memory.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that sufficient memory is available on the system. Then, rerun the command.

5019-477 S: The resource header utility cannot open resource: *resource_name*.

Explanation: The resource header utility did not open the *resource_name* resource. The resource name might be incorrect, or it might not be available on the system.

System action: RICOH InfoPrint XT cannot process the request.

User response: Verify that the entry is correct and that the resource exists. Then, rerun the command. Otherwise, report this message to your technical support representative.

5019-478 S: Resource: *resource_name* does not contain a multiple of 128 bytes.

Explanation: Valid Xerox resource names must contain a multiple of 128 bytes

System action: RICOH InfoPrint XT can not process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5019-479 S: Resource: *resource_name* does not have a valid Xerox resource name or extension.

Explanation: Valid Xerox resource names contain a 1-to-6 character resource name before the period, and a 3-character extension after the period. The valid Xerox resource name characters are uppercase alphabetic characters, numeric characters, and the dollar sign ($).

System action: RICOH InfoPrint XT can not process the request.

User response: Verify that the resource is a valid Xerox resource. If it is valid, contact your technical support representative.

5019-480 S: Resource: *resource_name* contains an unknown extension.

Explanation: The resource header utility did not recognize the extension of the *resource_name* resource.

System action: RICOH InfoPrint XT can not process the request.

User response: Verify that the resource is a valid Xerox resource. If it is valid, contact your technical support representative.

5019-481 S: Resource: *resource_name* contains an unknown block size value.

Explanation: The resource header utility did not recognize the block size value of the *resource_name* resource.

System action: RICOH InfoPrint XT can not process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5019-482 S: Resource: *resource_name* contains an unknown extension value.

Explanation: The resource header utility did not recognize the extension value of the *resource_name* resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5019-483 S: Resource: *resource_name* contains an unknown blocking factor value.

Explanation: The resource header utility did not recognize the blocking factor value of the *resource_name* resource.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the resource and make sure that it is not corrupted. Then, do the operation again.

5019-484 S: The resource header utility cannot write to resource: *resource_name*.

Explanation: An unidentifiable or unexpected I/O condition occurred during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-485 S: The resource header utility ended with this internal code: *nn* while processing resource: *resource_name*.

Explanation: The resource header utility found an error during processing.

System action: RICOH InfoPrint XT cannot process the request.

User response: Report this message to your technical support representative.

5019-486 E: Infoprint XT found an incorrect color reference format in *command* DJDE at position *position*.

Explanation: Ink names can have one of these forms:

- *catalogname.palettename.colorname*
- *catalogname..colorname*
- *palettename.colorname*
- *colorname.*

System action: RICOH InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the ink name in the DJDE and reconvert the job.

5019-487 E: The *command* DJDE exceeded the maximum number of inks in a list, which is 64.

Explanation: The specified DJDE exceeded the maximum number of inks in a list, which is 64.

System action: RICOH InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the ink list in the DJDE and reconvert the job.

5019-488 E: Infoprint XT found an incorrect color reference format in *command* DJDE.

Explanation: Ink names can have one of these forms:

- *catalogname.palettename.colorname*
- *catalogname..colorname*
- *palettename.colorname*
- *colorname.*

System action: RICOH InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the ink list in the specified DJDE and reconvert the job.

5019-489 E: Infoprint XT found one or more incorrect characters in *command* DJDE.

Explanation: Infoprint XT found incorrect characters in the specified DJDE.

System action: RICOH InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the DJDE syntax and reconvert the job.

5019-490 E: Incorrect numeric input found in command DJDE.

Explanation: Infoprint XT found incorrect numeric input in the specified DJDE. The syntax for the specified DJDE requires one or more numeric fields, which are incorrect.

System action: RICOH InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the DJDE syntax and reconvert the job.

5019-491 E: Line spacing value *spacing_value* in the LPI DJDE is not valid for the specified conversion units.

Explanation: RICOH InfoPrint XT cannot process the LPI DJDE line spacing value correctly. Either the value is nonnumeric, or the value is out of range for the specific units. Permitted units are LPI, DOTS or XDOTS. The maximum value for line spacing is 30 LPI, and the minimum value is 10 dots.

System action: RICOH InfoPrint XT continues processing the job, but the output might not be correct.

User response: Correct the line spacing value in the data stream and convert the job again.

5019-492 E: The data stream converter found an incorrect line range *line_range* in an LPI DJDE.

Explanation: RICOH InfoPrint XT found an LPI DJDE with a line range that does not meet the correct format. This range can have one of these forms:

n Number representing the line to which the specified linespacing will be applied.

n– Number of the line from which the specified linespacing will be applied through (bottom of form).

n–m The specified linespacing line spacing will be applied from line *n* through line *m*.

The line numbers have to be between 1 and 255.

System action: RICOH InfoPrint XT continues processing the stream, ignoring the range, but the output might not be correct.

User response: Correct the input data stream and convert the job again.

5019-493 E: The data stream converter found an LPI DJDE with overlapping line spacing ranges.

Explanation: RICOH InfoPrint XT found an LPI DJDE with multiple overlapping line ranges.

System action: RICOH InfoPrint XT continues processing the stream, ignoring the overlapping ranges, but the output might not be correct.

User response: Correct the input data stream and convert the job again.

5019-494 E: The data stream converter found a *djde_name* DJDE with too many entries. The number of entries for this DJDE must not exceed *entries_number*.

Explanation: RICOH InfoPrint XT found a DJDE with more than allowed entries.

System action: RICOH InfoPrint XT continues processing the stream, ignoring the extra entries, but the output might not be correct.

User response: Correct the input data stream and convert the job again.

5019-495 I: The resource header utility padded resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility padded a resource to ensure that it contains one or more complete 512-byte blocks. It requires no user response.

5019-496 S: The resource header utility did not process *resource_name*, which only contains text.

Explanation: The resource name has an extension for a binary resource, but the file only contains text.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file to determine its contents. The file might contain Xerox source data. For example, if the file contains JSL data, you can rename it to *file_name*.jsl and process it with the **pdxtpdl** command.

5019-497 S: The resource header utility cannot read *resource_name*.

Explanation: RICOH InfoPrint XT cannot read the file identified in the message.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the file and correct the problem. Then, issue the command again.

5019-498 I: The resource header utility removed padding from the header in resource: *resource_name*.

Explanation: This is an informational message that indicates that the resource header utility removed extraneous padding from an existing resource header. It requires no user response.

5019-511 E: The data stream converter cannot find stockset resource *stockset_resource_name* for RFEED.

Explanation: The data stream converter could not find a stockset resource while processing the RFEED command.

System action: RICOH InfoPrint XT ignores the RFEED command and selects media source 1.

User response: Verify that the XJDL and XJDE conversion parameters for the job specify the correct JDL, JDE and STOCKSET. Verify that the STOCKSET resource is loaded. Then, reconvert the job.

5019-512 E: The data stream converter cannot find stock reference *stock_reference_name* in stockset resource *stock_resource_name* for RFEED.

Explanation: The data stream converter could not find a stockset reference while processing the RFEED command.

System action: RICOH InfoPrint XT ignores the RFEED command and selects media source 1.

User response: Verify that the XJDL and XJDE conversion parameters for the job specify the correct JDL, JDE and STOCKSET. Verify that the loaded STOCKSET resource contains the stock reference. Then, reconvert the job.

5019-513 E: The data stream converter cannot find stock name *stock_name* in stockset resource *stockset_resource_name* for RFEED.

Explanation: The data stream converter could not find a stock name while processing the RFEED command.

System action: RICOH InfoPrint XT ignores the RFEED command and selects media source 1.

User response: Verify that the XJDL and XJDE conversion parameters for the job specify the correct JDL, JDE and STOCKSET. Verify that the loaded STOCKSET resource contains the stock name. Then, reconvert the job.

5019-514 E: The data stream converter cannot find cluster resource *cluster_resource_name* for RFEED.

Explanation: The data stream converter could not find a cluster resource while processing the RFEED command.

System action: RICOH InfoPrint XT ignores the RFEED command and selects media source 1.

User response: Verify that the XJDL and XJDE conversion parameters for the job specify the correct JDL, and JDE. Verify that the correct cluster resource is loaded. Then, reconvert the job.

5019-515 E: The data stream converter cannot find cluster name *cluster_name* in cluster resource*cluster_resource_name* for RFEED.

Explanation: The data stream converter could not found a cluster name while processing the RFEED command.

System action: RICOH InfoPrint XT ignores the RFEED command and selects media source 1.

User response: Verify that the XJDL and XJDE conversion parameters for the job specify the correct JDL, and JDE. Verify that the cluster resource contains the cluster name. Then, reconvert the job.

5019-520 I: Cannot create directory *directory_name* (error *ReturnCode*). ...*msg*

Explanation: RICOH 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 action failed.

System action: RICOH InfoPrint XT cannot process the request.

User response: Examine the directory or directories and correct the problem. Then, issue the command again.

JSL Metrics Compiler messages: 5031-*nnn*

This section lists the 5031 series of messages that RICOH InfoPrint XT can issue for the JSL metrics compiler. Some of the messages might include an additional error return code. See for explanations of these numbers.

Note

You can also see detailed error message information by entering the **pdxtmsg** command. See Using the pdxtmsg Command, p. 251.

5031 message explanations

5031-001: 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: RICOH InfoPrint XT cannot process the command.

User response: Review the syntax for the command and enter the command again.

5031-002: Cannot process 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.

5031-003: 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.

5031-004: 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.

5031-005: 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.

5031-006: 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.

5031-007: Value *value* is out of range for command option *-option*. Valid range is *lower_limit* to *upper_limit*.

Explanation: The **pdxtpdl** command found a value that is not in the range of valid values for the specified command option.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-008: Cannot parse *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.

5031-010: 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.

5031-102: The input list file did not contain any valid resources.

Explanation: You entered the **pdxtpdl** 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.

5031-103: The input pattern-matching string used for the search did not match any valid resources.

Explanation: You entered the **pdxtpdl** 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.

5031-200: Unable to access *file_or_directory* (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 correct access permissions. 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 the directory that contains the file, and correct the problem. Then, enter the command again.

5031-201: Cannot open file *filename* (error *ReturnCode*). ...*msg*

Explanation: The **pdxtpdl** command cannot open the file identified in the message. The message provides additional information about why the open action failed.

System action: InfoPrint XT could not 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.

5031-202: Cannot read file *filename* (error *ReturnCode*). ...*msg*

Explanation: The **pdxtpdl** command cannot read the file identified in the message. The message provides additional information about why the open action failed.

System action: InfoPrint XT could not 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.

5031-203: Cannot write file *filename* (error *ReturnCode*). ...*msg*

Explanation: The **pdxtpdl** command cannot write to the file identified in the message. The message provides additional information about why the open action failed.

System action: InfoPrint XT could not 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.

5031-204: Cannot copy *filename* to *directory* (error *ReturnCode*). ...*msg*

Explanation: RICOH InfoPrint XT cannot copy from or to the files identified in the message. The message provides additional information about why the action failed

System action: RICOH InfoPrint XT cannot process the request.

User response: Use the information that the message provides to correct the problem. Then, issue the command again.

5031-205: The JSL metrics compiler did not generate any resources from source file *filename*.

Explanation: The **pdxtpdl** command cannot create any reformatted resources from the file identified in the message.

System action: InfoPrint XT could not process the request.

User response: Examine the specified file and correct any errors. Then, enter the command that resulted in this error message.

5031-209: Cannot lock 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.

5031-230: Cannot create 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.

5031-231: Cannot change 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.

5031-234: Cannot resolve 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. The message 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 **pdxtpdl** command again.

5031-240: Cannot search *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.

5031-250: 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.

5031-290: Cannot set 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.

5031-292: 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.

5031-300: Starting compilation of *filename*...

Explanation: The **pdxtpdl** command has begun compiling a JSL source file.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-301: Compilation completed with return code *return_code*.

Explanation: The **pdxtpdl** command has completed compiling a JSL source file.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-302: Input source file *filename* contains one or more errors.

Explanation: The **pdxtpdl** command found syntax errors in *filename*. Other messages explain the errors.

System action: InfoPrint XT continues processing the request, but output from data stream conversions using the reformatted resources that the request creates might not be correct.

User response: If any accompanying messages indicate syntax errors in the JSL, correct the errors. Then, compile the JSL again. If there are no syntax errors, no action is necessary.

5031-303: The JSL metrics compiler created resource *resource* from source file *filename*.

Explanation: The **pdxtpdl** command has compiled *resource* from a JSL source file.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-400: At line *line_number*, column *column_number:*

Explanation: This message that indicates the location of one or more syntax errors that the **pdxtpdl** command found in a JSL. Other messages explain the errors.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-500: Command keyword *keyword* is incorrect.

Explanation: The **pdxtpdl** command found an incorrect keyword in a command.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-501: Parameter keyword *keyword* is incorrect.

Explanation: The **pdxtpdl** command found an incorrect keyword in a parameter.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct parameter for the command options. Then, compile the JSL again.

5031-502: Unable to determine the correct parameter for the option or option group *option* in command *command*.

Explanation: You specified a command with one or more options that imply parameters that you did not specify. The options can apply to more than one possible parameter. The **pdxtpdl** command cannot determine which parameter is correct.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct parameter for the command options. Then, compile the JSL again.

5031-503: Option *option* is incorrect for parameter *parameter*.

Explanation: The **pdxtpdl** command found an incorrect option in a parameter.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-505: Expanding short form command specification to *long_command_form*...

Explanation: The **pdxtpdl** command expanded the short form of a command to its long form.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-506: Null parameter option is incorrect.

Explanation: The **pdxtpdl** command found an incorrect null option in a parameter.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-507: Command *command* has no parameter that accepts the specified option.

Explanation: You specified a command with an option that implies parameters that you did not specify. None of the parameters for the command can use the options that you specified.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct options for the command. Then, compile the JSL again.

5031-508: Closing quote is missing.

Explanation: Each opening quote (‘ or “) must have a closing quote.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-509: Comment close is missing.

Explanation: Each comment opening (/*) must have a comment close (*/).

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-510: The command did not expect end of file.

Explanation: The **pdxtpdl** command found end of file in an unexpected location or context.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-600: Unit of measure *unit* is incorrect.

Explanation: The **pdxtpdl** command found an incorrect unit of measure.

System action: InfoPrint XT ignores the unit of measure.

User response: Correct the error. Then, compile the JSL again.

5031-601: Command *command* is unsupported

Explanation: The **pdxtpdl** command found a command that is unsupported.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-602: Parameter *parameter* for command *command* is unsupported.

Explanation: The **pdxtpdl** command found a parameter that is unsupported.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-603: Label *label* is a duplicate.

Explanation: The **pdxtpdl** command found a label that is used in another location in the JSL.

System action: InfoPrint XT cannot process the request.

User response: Change the label. Then, compile the JSL again.

5031-604: Criteria for command *command* is missing.

Explanation: The **pdxtpdl** command cannot find the criteria that it expected for the command.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-605: Parameter *parameter* for command *command* is missing.

Explanation: The **pdxtpdl** command cannot find the parameter that it expected for the command.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-606: Value *value* is out of range. Valid range is *lower_limit* to *upper_limit*.

Explanation: The **pdxtpdl** command found a value that is not in the range of valid values.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-607: Parameter *parameter* contains too many options. Extraneous options ignored.

Explanation: The **pdxtpdl** command found extraneous parameter options.

System action: InfoPrint XT ignores the extraneous options and continues processing.

User response: Examine the parameter and correct the problem. Then, compile the JSL again.

5031-608: Referenced label *label* is missing.

Explanation: The **pdxtpdl** command could not find the label identified in the message.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct label. Then, compile the JSL again.

5031-609: A JDL declaration is missing for command *command*.

Explanation: The **pdxtpdl** command found a command that should be part of a JDL, but could not find a declaration for the JDL.

System action: InfoPrint XT skipped the command.

User response: Specify the correct JDL declaration for the command. Then, compile the JSL again.

5031-610: One or more options for parameter *parameter* are missing.

Explanation: You specified a parameter without some of the required options.

System action: InfoPrint XT cannot process the request.

User response: Specify all of the required options for the parameter. Then, compile the JSL again.

5031-611: The JSL metrics compiler ignored option *option* for parameter *parameter*.

Explanation: The **pdxtpdl** command found a valid Xerox parameter option that is currently unsupported.

System action: InfoPrint XT ignored the parameter option.

User response: This is an informational message and requires no user response.

5031-612: A user table declaration is missing for command *command*.

Explanation: You specified command with a reference to a user-defined table, but the **pdxtpdl** command cannot find a declaration for the table.

System action: InfoPrint XT cannot process the request.

User response: Specify a declaration for the user-defined table. Then, compile the JSL again.

5031-613: An unlabeled user table declaration is already declared in *command*. Unlabeled user table declaration ignored.

Explanation: You specified more than one unlabeled user table declaration in the command and parameter identified in the message.

System action: The **pdxtpdl** command ignored the extraneous user table declaration.

User response: Specify only one user table declaration for the command and parameter. Then, compile the JSL again.

5031-614: A string size exceeded the maximum of *maximum_size* bytes.

Explanation: You specified a character string that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify a character string of the correct length. Then, compile the JSL again.

5031-615: The command did not expect end of JDL.

Explanation: The **pdxtpdl** command found the end of the JDL in an unexpected location or context.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-616: A required label for command *command* is missing.

Explanation: The **pdxtpdl** command cannot find the label that it expected for the command.

System action: InfoPrint XT cannot process the request.

User response: Correct the error. Then, compile the JSL again.

5031-618: The last successfully parsed command was *command* on line *line_number*.

Explanation: This message that indicates the last command that the **pdxtpdl** command was able to process successfully. Other messages explain the errors that caused processing to end.

System action: InfoPrint XT cannot continue.

User response: This is an informational message and requires no user response.

5031-619: STOCK reference *stock_name* is already assigned.

Explanation: You specified a STOCK name that is already in use.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct STOCK name. Then, compile the JSL again.

5031-620: STOCK *stock_name* is undefined.

Explanation: You specified a STOCK name that is not declared in the JSL.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct STOCK name, or specify a declaration for the STOCK name. Then, compile the JSL again.

5031-621: Two or more string constants must have the same length.

Explanation: You specified string constants that do not have the same length.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct string constants. Then, compile the JSL again.

5031-622: Label *label* identifies a system table.

Explanation: You specified a label identifier that is already being used to identify a system table.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct label identifier. Then, compile the JSL again.

5031-623: The command expected integer value *integer* but found *fractional_value*.

Explanation: You specified a fractional value, but the compiler expected an integer value.

System action: InfoPrint XT continues processing.

User response: Specify the correct integer value. Then, compile the JSL again.

5031-626: The length of TABLE CONSTANT *constant* does not match the length value in CRITERIA *criteria*.

Explanation: You specified a TABLE CONSTANT whose length is not equal to the length value in the corresponding CRITERIA.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct TABLE CONSTANT or the correct CRITERIA length value. Then, compile the JSL again.

5031-700: JDE *JDE_name* contains one or more errors.

Explanation: This message that indicates that the **pdxtpdl** command found syntax errors in the JDE identified in the message. Other messages explain the errors that caused processing to end.

System action: InfoPrint XT cannot continue.

User response: This is an informational message and requires no user response.

5031-701: BLOCK length is not a multiple of fixed RECORD LENGTH value.

Explanation: You specified RECORD STRUCTURE=F or FB with a BLOCK length value that is not a multiple of the RECORD length.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct BLOCK length. Then, compile the JSL again.

5031-702: ZERO=YES requires a RECORD LTHFLD value greater than zero.

Explanation: You specified BLOCK ZERO=YES, but the **pdxtpdl** command did not find RECORD LTHFLD, or found RECORD LTHFLD=0.

System action: InfoPrint XT cannot process the request.

User response: Remove BLOCK ZERO=YES, or specify a RECORD LTHFLD value greater than zero. Then, compile the JSL again.

5031-703: IDEN SKIP value is greater than RECORD LENGTH value.

Explanation: You specified an IDEN SKIP value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct IDEN SKIP value. Then, compile the JSL again.

5031-704: MINLAB value is greater than MAXLAB value.

Explanation: You specified a MINLAB value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct MINLAB value. Then, compile the JSL again.

5031-705: Length of IDEN DJDE identifier fields is greater than RECORD LENGTH value.

Explanation: The sum of the IDEN OFFSET value and the length of the IDEN PREFIX string is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct IDEN OFFSET value and an IDEN PREFIX string with the correct length. Then, compile the JSL again.

5031-706: HOST type *host_type* is not valid with LABEL type *label_type*.

Explanation: You specified an unsupported combination of HOST type and LABEL type.

System action: InfoPrint XT replaces the incorrect label type with a label that is valid for the host type.

User response: Specify the correct HOST type and LABEL type. Then, compile the JSL again.

5031-707: BLOCK ADJUST value is greater than BLOCK LENGTH value.

Explanation: You specified a BLOCK ADJUST value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct BLOCK ADJUST value. Then, compile the JSL again.

5031-708: RECORD ADJUST value is greater than RECORD LENGTH value.

Explanation: You specified a RECORD ADJUST value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct RECORD ADJUST value. Then, compile the JSL again.

5031-709: RECORD LENGTH value is greater than BLOCK LENGTH value.

Explanation: You specified a RECORD LENGTH value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct RECORD LENGTH value. Then, compile the JSL again.

5031-710: Sum of BLOCK PREAMBLE and BLOCK POSTAMBLE values is greater than BLOCK LENGTH value.

Explanation: You specified a combined BLOCK PREAMBLE and BLOCK POSTAMBLE value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct BLOCK PREAMBLE and BLOCK POSTAMBLE values. Then, compile the JSL again.

5031-711: Sum of RECORD PREAMBLE and RECORD POSTAMBLE values is greater than RECORD LENGTH value.

Explanation: You specified a combined RECORD PREAMBLE and RECORD POSTAMBLE value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct RECORD PREAMBLE and RECORD POSTAMBLE values. Then, compile the JSL again.

5031-712: Variable RECORD STRUCTURE requires a RECORD LTHFLD value greater than zero.

Explanation: You specified RECORD STRUCTURE=V or VB, but the **pdxtpdl** command did not find RECORD LTHFLD, or found RECORD LTHFLD=0.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct RECORD STRUCTURE value, or specify a RECORD LTHFLD value greater than zero. Then, compile the JSL again.

5031-713: Undefined blocked RECORD STRUCTURE requires a RECORD CONSTANT value.

Explanation: You specified RECORD STRUCTURE=UB, but the **pdxtpdl** command did not find RECORD CONSTANT.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct RECORD STRUCTURE, or specify a RECORD CONSTANT value. Then, compile the JSL again.

5031-714: MINLAB value is greater than BLOCK LENGTH value.

Explanation: You specified a MINLAB value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct MINLAB value. Then, compile the JSL again.

5031-715: MAXLAB value is greater than BLOCK LENGTH value.

Explanation: You specified a MAXLAB value that is too large.

System action: InfoPrint XT cannot process the request.

User response: Specify the correct MAXLAB value. Then, compile the JSL again.

5031-800: InfoPrint XT for Linux 3.4.0.0 Level *code_level compile_date compile_time*.

Explanation: This message displays the RICOH InfoPrint XT version and code level

System action: RICOH InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-801: JSL compilation process started. Number of resources to compile: *number*.

Explanation: InfoPrint XT has begun compiling the JSLs that you specified in the **pdxtpdl** command.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-802: Replacing resource *resource*.

Explanation: You specified the **–r pdxtpdl** parameter. The **pdxtpdl** command has replaced the reformatted resource identified in the message.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-803: The JSL metrics compiler generated *number* resources.

Explanation: This message specifies the total number of reformatted resources that the **pdxtpdl** command created.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-804: The JSL metrics compiler replaced previously compiled resource *resource*.

Explanation: The **pdxtpdl** command replaced an existing reformatted resource that was already compiled.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-805: The JSL metrics compiler skipped resource *resource*, which did not match the input pattern-matching string.

Explanation: The **pdxtpdl** command skipped a JSL file that did not match the pattern-matching string that you specified with the **–j** parameter.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-806: The JSL metrics compiler skipped previously compiled resource *resource*.

Explanation: The **pdxtpdl** command skipped an existing reformatted resource that was already compiled.

System action: InfoPrint XT continues processing.

User response: This is an informational message and requires no user response.

5031-807: The resource *resource* is already compiled. Use the –r command option to replace it or the –s command option to skip it.

Explanation: You entered the **pdxtpdl** command to compile the resource specified in the message. That resource is already compiled on the system. If this is a new version of the resource and you want to compile it again, you must specify the **-r** option. If you want to skip the resource, you must specify the **-s** option.

System action: InfoPrint XT cannot continue.

User response: Specify the **–r** command option or the **–s** command option. Then, compile the JSL again.

5031-808: The JSL Metrics Compiler did not process *resource_name*, which is a binary file.

Explanation: The resource name has an extension for a binary resource, and it contains binary data.

System action: InfoPrint XT cannot process the request.

User response: Examine the file to determine its contents. The file might not be a JSL source file.

RICOH InfoPrint XT color messages: 5032-*nnn*

This section lists the 5032 series of messages that RICOH InfoPrint XT can issue for the **pdxtcolor** command. Depending on the message, the message might include an additional error return code. See Return codes for Linux, p. 398 for explanations of these numbers.

5032 message explanations

5032-001: Ink catalog name '*Catalog name*' is not valid for the manual ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: You issued a command and included a catalog name that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid catalog name (**SOLID**, **DFAULT** or **XEROX1**). Then, issue the command again.

5032-002: Ink palette name '*Palette _name*' is not valid for the manual ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: You issued a command and included a palette name that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid palette name. Then, issue the command again.

5032-003: Ink color name '*Ink_name*' is not valid for the manual ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: You issued a command and included a ink name that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid ink name. Then, issue the command again.

5032-004: Entry '*Catalog_name.Palette_name.Ink_name*' is not valid for the manual ink correlation table.

Explanation: You issued a command and included an entry from the manual ink correlation table that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid entry from the manual ink correlation table. Then, issue the command again.

5032-005: Cannot process the ink correlation table (error *Internal_error_number*).

Explanation: This message indicates that an internal error exists in the processing of the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-006: Cannot open ink correlation table file *File_name* (error *Error_number*). ...*msg*

Explanation: InfoPrint XT cannot open the ink correlation table file. The message provides additional information about why the action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the file or the directory that contains the file and correct the problem. Then, issue the command again

5032-008: Interpretation character '*Interpretation_character*' is not valid for the ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT loads the entry from the ink correlation table, but the interpretation character is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the ink correlation table file. Then, issue the command again.

5032-009: Color type character '*Type_character*' is not valid for the ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT loads the entry from the ink correlation table, but the type character is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the ink correlation table file. Then, issue the command again.

5032-010: CIELAB L* value '*L*_ value*' is not valid for ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT loads the entry from the ink correlation table, but the CIELAB **L*** value is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid CIELAB **L*** value. Then, issue the command again.

5032-011: Grayscale value '*Grayscale_value*' is not valid for ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT loads the entry from the ink correlation table, but the grayscale value is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid grayscale value. Then, issue the command again.

5032-012: CIELAB a* value '*a*_value*' is not valid for ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT loads the entry from the ink correlation table, but the CIELAB **a*** value is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid CIELAB **a*** value. Then, issue the command again.

5032-013: CIELAB b* value '*b*_value*' is not valid for ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT loads the entry from the ink correlation table, but the CIELAB **b*** value is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid CIELAB **b*** value . Then, issue the command again.

5032-014: Entry type '*Entry_type*' is not valid for loading the ink correlation table.

Explanation: InfoPrint XT loads the entry from the ink correlation table, but the entry type is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid entry type. Then, issue the command again.

5032-015: Incorrect ink interpretation control for ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT writes the ink correlation file, but the ink interpretation is not valid.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-016: Cannot write ink correlation file in step '*Write_step_number*' for ink correlation table entry '*Catalog_name.Palette_name.Ink_name*' (error *System_error_code*). ...*msg*

Explanation: InfoPrint XT cannot write the ink correlation file. The message provides additional information about why the action failed.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-017: Ink type '*Ink_type*' is not valid for ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT writes the ink correlation table file for the entry, but the ink type is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid ink type. Then, issue the command again.

5032-018: Option '-k*_option_string*' contains too few parameters for loading a solid color into the ink correlation table.

Explanation: You issued a command to load a solid color into the ink correlation table and included too few parameters for the '-**k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-019: Incorrect '*-k_option_string*' option type control parameter '*The_type_control*' for loading a solid color into the ink correlation table.

Explanation: You issued a command to load a solid color name into the ink correlation table, but the type control is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-020: The first numeric value '*numeric_value*' of the '-k *option_string*' option is not valid for loading a solid color name into the ink correlation table.

Explanation: You issued a command to load a solid color name into the ink correlation table and included an incorrect value for the first numeric '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-021: The second numeric value '*numeric_value*' of the '-k *option_string*' option is not valid for loading a solid color name into the ink correlation table.

Explanation: You issued a command to load a solid color name into the ink correlation table and included an incorrect value for the second numeric '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-022: The third numeric value '*numeric_value*' of the '-k *option_string*' option is not valid for loading a solid color name into the ink correlation table.

Explanation: You issued a command to load a solid color name into the ink correlation table and included an incorrect value for the third numeric '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-023: The fourth numeric value '*numeric_value*' for '-k *option_string*' option is not valid for loading a solid color name into the ink correlation table.

Explanation: You issued a command to load a solid color name into the ink correlation table and included an incorrect value for the fourth numeric '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-024: Option '-k *option_string*' contains too many parameters for loading a solid color name with sRGB color type into the ink correlation table

Explanation: You issued a command to load a solid color name with sRGB color type into the ink correlation table and included too many parameters for the '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-025: Option '-k *option_string*' contains too many parameters for loading a solid color name with CIELAB color type into the ink correlation table

Explanation: You issued a command to load a solid color name with CIELAB color type into the ink correlation table and included too many parameters for the '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-026: Option '-k *option_string*' contains too many parameters for loading a solid color name with grayscale color type into the ink correlation table.

Explanation: You issued a command to load a solid color name with grayscale color type into the ink correlation table and included too many parameters for the '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-027: The ink color type is not valid for converting from sRGB to CIELAB.

Explanation: You issued a command to convert from sRGB to CIELAB, but the ink color type is not valid.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-028: Option '-e option_string' contains too few parameters for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included too few parameters for the '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-029: Incorrect '*-e_option_string*' option interpretation control parameter '*The_interpretation_control*' for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included an interpretation control that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-030: Type control '*type_control*' of the '-e *option_string*' option is not valid for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included an type control that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-031: The first numeric value '*numeric_value*' of the '-e *option_string*' option is not valid for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included an incorrect value for the first numeric '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-032: The second numeric value '*numeric_value*' of the '-e *option_string*' option is not valid for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included an incorrect value for the second numeric '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-033: The third numeric value '*numeric_value*' of the '-e *option_string*' option is not valid for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included an incorrect value for the third numeric '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-034: The fourth numeric value '*numeric_value*' of the '-e *option_string*' option is not valid for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included an incorrect value for the fourth numeric '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-035: Option '-e *option_string*' contains too many parameters for editing an ink name with CIELAB color type in the ink correlation table.

Explanation: You issued a command to edit an ink name with CIELAB color type in the ink correlation table and included too many parameters for the '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-036: Option '-e *option_string*' contains too many parameters for editing an ink name with sRGB color type in the ink correlation table.

Explanation: You issued a command to edit an ink name with sRGB color type in the ink correlation table and included too many parameters for the '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-037: Option '-e *option_string*' contains too many parameters for editing an ink name with grayscale color type in the ink correlation table.

Explanation: You issued a command to edit an ink name with grayscale color type in the ink correlation table and included too many parameters for the '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-038: Option '-e *option_string*' contains too many parameters for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table and included too many parameters for the '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-039: Option '-k *option_string*' contains too many parameters for loading a solid color name into the ink correlation table.

Explanation: You issued a command to load a solid color name into the ink correlation table and included too many parameters for the '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-040: Option '-r *option_string*' contains too many parameters for renaming a solid color in the ink correlation table.

Explanation: You issued a command to rename a solid color in the ink correlation table and included too many parameters for the '**-r**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-041: Option '-n *option_string*' contains too many parameters for selecting a solid color name in the ink correlation table.

Explanation: You issued a command to select a solid color name in the ink correlation table and included too many parameters for the '**-n**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-042: Option '-t *option_string*' contains too many parameters for specifying shading in an ink correlation table entry.

Explanation: You issued a command to set the shading for an entry in the ink correlation table and included too many parameters for the '**-t**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-044: Option '-l *option_string*' contains too many parameters for specifying color spectrum limits in the ink correlation table.

Explanation: You issued a command to set the limits for the color spectrum in the ink correlation table and included too many parameters for the '**-l**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-045: Cannot find -e option parameters for editing an ink name in the ink correlation table.

Explanation: You issued a command to edit an ink name in the ink correlation table, but InfoPrint XT could not find parameters for the '**-e**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-046: Cannot find -k option parameters for loading a solid color name into the ink correlation table.

Explanation: You issued a command to load a solid color name into the ink correlation table, but InfoPrint XT could not find parameters for the '**-k**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-047: Cannot find -r option parameters for renaming a solid color in the ink correlation table.

Explanation: You issued a command to rename a solid color in the ink correlation table, but InfoPrint XT could not find parameters for the '**-r**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-048: Cannot find -n option parameters for selecting a solid color name in the ink correlation table.

Explanation: You issued a command to select a solid color name in the ink correlation table, but InfoPrint XT could not find parameters for the '**-n**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-049: Cannot find -t option parameters for specifying shading for an entry in the ink correlation table.

Explanation: You issued a command to set the shading for an entry in the ink correlation table, but InfoPrint XT could not find parameters for the '**-t**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-051: Cannot find -I option parameters for specifying color spectrum limits in the ink correlation table.

Explanation: You issued a command to set the limits for the color spectrum in the ink correlation table, but InfoPrint XT could not find parameters for the '**-I**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-052: Cannot find entry '*Catalog_name.Palette_name.Ink_name*' in the ink correlation table.

Explanation: This message indicates that the entry is not found in the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid combination of catalog, palette, and ink name. Then, issue the command again.

5032-053: Cannot load solid color name '*Color_name*' into the ink correlation table (error *Internal_error_number*).

Explanation: This message indicates that loading a solid color name into the ink correlation table resulted in an error.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-054: Solid color type is not CIELAB when loading the CIELAB palette for solid color '*Color_name*' into the ink correlation table.

Explanation: InfoPrint XT loads a CIELAB palette for a solid color, but the type of the solid color is not CIELAB.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-055: Ink name '*Ink_name*' is not valid (error *Internal_error_number*).

Explanation: InfoPrint XT processes an ink name for internal use, but the ink name is not valid.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid ink name. Then, issue the command again.

5032-056: Length of option string '*option_string*' is outside the valid range of *minimum_length* through *maximum_length* characters.

Explanation: You issued a command, but the length of the option string is not valid. The message text specifies the limits.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid length for the option string. Then, issue the command again.

5032-057: Option string '*option_string*' contains characters that are not alphanumeric.

Explanation: You issued a command, but the option string contains characters that are not alphanumeric.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid option string. Then, issue the command again.

5032-058: Cannot find an integer value in the option string.

Explanation: You issued a command, but InfoPrint XT could not find an integer value in the option string.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-059: Integer value '*integer_value*' contains characters that are not valid.

Explanation: You issued a command, but the integer value contains characters that are not valid. The integer value should contain only numerical and sign characters.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-060: Integer value '*integer_value*' is outside the valid range of *minimum_value* through *maximum_value*.

Explanation: You issued a command, but the integer value exceeds the permitted limits. The message text specifies the limits.

System action: InfoPrint XT cannot process the request.

User response: Specify valid values. Then, issue the command again.

5032-061: Cannot find a hexadecimal value in the option string.

Explanation: You issued a command, but InfoPrint XT cannot find the hexadecimal value for the option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-062: Hexadecimal value 'X *hex_value*' contains characters that are not valid.

Explanation: You issued a command, but the hexadecimal value contains characters that are not valid. You must specify the value using hexadecimal characters.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-063: Hexadecimal value 'X*hex_value*' must be less than or equal to *maximum_limit*.

Explanation: You issued a command, but the hexadecimal value exceeds the maximum limit. The message text specifies the limit.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-064: Hexadecimal value X'*hex_value*' is outside the valid range of X'*minimum_value*' through X'*maximum_value*'.

Explanation: You issued a command, but the hexadecimal value exceeds the permitted limits. The message text specifies the limits.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-065: Cannot find a floating point value in the option string.

Explanation: You issued a command, but InfoPrint XT could not find the floating point value for the option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-066: Floating point value '*floating_point_value*' contains characters that are not valid.

Explanation: You issued a command, but the floating point value contains characters that are not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-067: Floating point value '*floating_point_value*' contains too many digits after the decimal point.

Explanation: You issued a command, but the floating point value contains more than 2 digits after the decimal point.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-068: Floating point value '*floating_point_value*' is outside the valid range of *minimum_value* through *maximum_value*.

Explanation: You issued a command, but the floating point value exceeds the permitted limits. The message text specifies the limits.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-069: Cannot find the color name for sampling the ink correlation table colors.

Explanation: You issued a command to sample the ink correlation table colors, but InfoPrint XT could not find the color name.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-070: Cannot find ink catalog name '*Catalog_name*' for ink correlation table entry *Catalog_name.Palette_name.Ink_name*.

Explanation: InfoPrint XT processes a command, but the catalog name for the entry is not found in the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid catalog name (**SOLID**, **DFAULT** or **XEROX1**). Then, issue the command again.

5032-071: Cannot find ink palette name '*Palette_name*' for ink correlation table entry *Catalog_name.Palette_name.Ink_name*.

Explanation: InfoPrint XT processes a command, but the ink name for the entry is not found in the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid palette name. Then, issue the command again.

5032-072: Cannot find ink color name '*Ink_name*' for ink correlation table entry *Catalog_name.Palette_name.Ink_name*.

Explanation: InfoPrint XT process a command, but the ink name for the entry in the ink correlation table is not found.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid ink name. Then, issue the command again.

5032-073: Cannot create sample AFP file *Sample_AFP_file* (error *Internal_error_number*).

Explanation: InfoPrint XT cannot create the sample AFP file. The message provides additional information about why the action failed.

System action: InfoPrint XT cannot process the request.

User response: Review the user write permissions for the **metrics** subdirectory in the destination directory. Then, issue the command again. If you cannot determine the problem, report this message to your technical support representative.

5032-075: Cannot write to sample AFP file *Sample_AFP_file* at step *Write_step_index* (error *Internal_error_number*). ...*msg*

Explanation: InfoPrint XT cannot write to the sample AFP file. The message provides additional information about why the action failed.

System action: InfoPrint XT cannot process the request.

User response: Examine the available disk space. Then, issue the command again. If you cannot determine the problem, report this message to your technical support representative.

5032-076: An array index exceeds the array boundary (error *Internal_error_number*).

Explanation: InfoPrint XT processes a command, but an internal error signals that the array index exceeds the array boundary.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-077: Cannot find ink color name '*Ink_name*' for solid color name '*Color_name*' in the ink correlation table (error *Internal_error_number*).

Explanation: InfoPrint XT processes a command, but the ink name for the solid color is not found in the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-078: Ink catalog name '*Catalog_name*' is not valid for adding the ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT processes a command, but the catalog name is not valid for adding the entry to the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: Specify a valid catalog name (**SOLID**, **DFAULT** or **XEROX1**) for the entry. Then, issue the command again. If you cannot determine the problem, report this message to your technical support representative.

5032-079: Cannot find ink catalog name '*Catalog_name*' for adding the ink correlation table entry '*Catalog_name.Palette_name.Ink_name*'.

Explanation: InfoPrint XT processes a command, but the catalog name is not found in the ink correlation table for adding the entry.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-080: The number of parameters for the '-r *Rename_option_string*' option is not correct for renaming a solid color in the ink correlation table.

Explanation: You issued a command to rename a solid color in the ink correlation table, but the number of parameters for the '**-r**' option is not correct.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-081: The length of the color names for the '-r *Rename_option_string*' option is not valid for renaming a solid color in the ink correlation table.

Explanation: You issued a command to rename a solid color in the ink correlation table, but the length of the color names for the '**-r**' option is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-082: Cannot rename standard solid color '*Color_name*'.

Explanation: InfoPrint XT cannot rename the Xerox standard color names.

System action: InfoPrint XT cannot process the request.

User response: Specify a custom color. Then, issue the command again.

5032-083: Cannot find ink catalog name '*Catalog_name*' for ink palette '*Catalog_name.Palette_name*' in the ink correlation table.

Explanation: InfoPrint XT processes a command, but the catalog name for the palette is not found in the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-084: Cannot find ink palette name '*Palette_name*' for ink palette '*Catalog_name.Palette_name*' in the ink correlation table.

Explanation: InfoPrint XT processes a command, but the palette name for the palette is not found in the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-085: The number of parameters for the '-n *color_select_option_value*' option is not correct for selecting a solid color in the ink correlation table.

Explanation: You issued a command to select a solid color in the ink correlation table, but the number of parameters for the '**-n**' option is not correct.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-086: The length of the color names for the '-n *color_select_option_value*' option is not valid for selecting a solid color in the ink correlation table.

Explanation: You issued a command to select a solid color in the ink correlation table, but the length of the color names for the '**-n**' option is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-087: The number of parameters for the '-t *color_shading_option_value*' option is not correct for specifying shading for an entry in the ink correlation table.

Explanation: You issued a command to set the shading for an entry in the ink correlation table, but the number of parameters for the '**-t**' option is not correct.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-088: The length of the parameter for the '-t *color_shading_option_value*' option exceeds the limit for specifying shading for an entry in the ink correlation table.

Explanation: You issued a command to set the shading for an entry in the ink correlation table, but the length of the parameter for the '**-t**' option exceeds the limit.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-089: Incorrect '-t *color_shading_option_value*' option parameter for specifying shading for an entry in the ink correlation table.

Explanation: You issued a command to set the shading for an entry in the ink correlation table, but the parameter for the '**-t**' option is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-090: Cannot find a short ink name for the long ink name '*Catalog_name.Palette_name.Ink_name*' in the ink correlation table.

Explanation: InfoPrint XT processes a command, but the short ink name is not found in the ink correlation table for an entry that has a standard long ink name.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-091: Incorrect number of '-I *color_select_option_value*' option parameters for specifying color spectrum limits in the ink correlation table.

Explanation: You issued a command to set the limits for the color spectrum in the ink correlation table, but the number of parameters for the '**-I**' option is not correct.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-092: The first numeric value of the '-I *color_spectrum_limits_option_value*' option parameter is not valid for specifying color spectrum limits in the ink correlation table.

Explanation: You issued a command to set the limits for the color spectrum in the ink correlation table and included a value for the first numeric '**-I**' option that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-093: The second numeric value of the '-I *color_spectrum_limits_option_value*' option parameter is not valid for specifying color spectrum limits in the ink correlation table.

Explanation: You issued a command to set the limits for the color spectrum in the ink correlation table and included a value for the second numeric '**-I**' option that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-094: The third numeric value of the '-I *color_spectrum_limits_option_value*' option parameter is not valid for specifying color spectrum limits in the ink correlation table.

Explanation: You issued a command to set the limits for the color spectrum in the ink correlation table and included a value for the third numeric '**-I**' option that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-095: The fourth numeric value of the '-I *color_spectrum_limits_option_value*' option parameter is not valid for specifying color spectrum limits in the ink correlation table.

Explanation: You issued a command to set the limits for the color spectrum in the ink correlation table and included a value for the fourth numeric '**-I**' option that is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-096: Cannot delete palette name '*Palette_name*': palette not found in the ink correlation table.

Explanation: InfoPrint XT processes a command, but the palette name is not found in the ink correlation table for deleting it.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-097: Cannot seek in the file *File_name* (error *System_error_number*). ...*msg*

Explanation: InfoPrint XT cannot seek in a file. The message provides additional information about why the action failed.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-101: Solid color and palette types do not match for updating palette 'XEROX1.'*Palette_name*' shading control.

Explanation: InfoPrint XT updates the shading control for a palette of a solid color, but the solid color type and the palette type do not match.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-102: Shading interpretation control '*Shading_interpretation_control*' is not not valid for updating shading in the 'XEROX1.*Palette_name*' palette.

Explanation: InfoPrint XT updates the shading for the palette, but the shading interpretation control is not valid.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-103: Cannot change color type for the MONO solid color.

Explanation: InfoPrint XT cannot change the type for standard solid color **MONO**.

System action: InfoPrint XT cannot process the request.

User response: The type for standard solid color **MONO** must be grayscale.

5032-104: Solid color '*Color_name*' type is not valid for loading into the ink correlation table.

Explanation: InfoPrint XT loads the solid color into the ink correlation table, but the type of the solid color is not valid.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-105: Solid color '*Color_name*' grayscale palette type is not valid for loading into the ink correlation table.

Explanation: InfoPrint XT loads a grayscale palette, but a type other than grayscale is found in the ink correlation table.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-106: Solid color '*Color_name*' and palette 'XEROX1. '*Color_name*' types do not match for loading the solid color into the ink correlation table.

Explanation: InfoPrint XT loads a solid color into the ink correlation table, but the types of the solid color and the palette do not match.

System action: InfoPrint XT cannot process the request.

User response: If you cannot determine the problem, report this message to your technical support representative.

5032-107: Cannot rename a solid color to an existing solid color ('*Color_name*').

Explanation: InfoPrint XT cannot rename a solid color to an existing solid color.

System action: InfoPrint XT cannot process the request.

User response: Specify a solid color name that is not one of the Xerox standard solid colors. Then, issue the command again.

5032-108: Cannot load solid color '*Color_name*' for palette 'XEROX1.'*Palette_name*' into the ink correlation table. Solid color type is CIELAB, but associated palette type is grayscale.

Explanation: InfoPrint XT loads a solid color into the ink correlation table, but the type of the solid color is CIELAB and the type of the palette is grayscale.

System action: InfoPrint XT cannot process the request.

User response: Specify '**-p yes**' option for loading the solid color of type CIELAB in order to overwrite the grayscale palette with a CIELAB palette or specify the grayscale type for loading the solid color. Then, issue the command again.

5032-109: Cannot load solid color '*Color_name*' for palette 'XEROX1. '*Palette_name*', into the ink correlation table. Solid color type is sRGB, but associated palette type is grayscale.

Explanation: InfoPrint XT loads a solid color into the ink correlation table, but the type of the solid color is sRGB and the type of the associated palette is grayscale.

System action: InfoPrint XT cannot process the request.

User response: Specify '**-p yes**' option for loading the solid color of type sRGB in order to overwrite the grayscale palette with a CIELAB palette (converted from sRGB) or specify the grayscale type for loading the solid color. Then, issue the command again.

5032-110: Cannot load solid color '*Color_name*' for palette 'XEROX1. '*Palette_name*', into the ink correlation table. Solid color type is grayscale, but associated palette type is CIELAB.

Explanation: InfoPrint XT loads a solid color into the ink correlation table, but the type of the solid color is grayscale and the type of the palette is CIELAB.

System action: InfoPrint XT cannot process the request.

User response: Specify '**-p yes**' option for loading the solid color of type grayscale in order to overwrite the CIELAB palette with a grayscale palette or specify the CIELAB type for loading the solid color. Then, issue the command again.

5032-111: Cannot edit color '*Catalog_name.Palette_name.Ink_name*' for palette 'XEROX1. '*Palette_name*', in the ink correlation table. Color type is CIELAB, but associated palette type is grayscale.

Explanation: InfoPrint XT edits a color in the ink correlation table, but the type of the color is CIELAB and the type of the associated palette is grayscale.

System action: InfoPrint XT cannot process the request.

User response: For the case of the solid colors, specify '**-p yes**' option for editing the solid color of type CIELAB in order to overwrite the grayscale palette with a CIELAB palette or specify the grayscale type for editing the solid color. For the other cases, specify the grayscale type for editing the color. Then, issue the command again.

5032-112: Cannot edit color '*Catalog_name.Palette_name.Ink_name*' for palette 'XEROX1. '*Palette_name*' in the ink correlation table. Color type is sRGB, but associated palette type is grayscale.

Explanation: InfoPrint XT edits a color in the ink correlation table, but the type of the color is sRGB and the type of the associated palette is grayscale.

System action: InfoPrint XT cannot process the request.

User response: For the case of the solid colors, specify '**-p yes**' option for editing the solid color of type sRGB in order to overwrite the grayscale palette with a CIELAB palette (converted from sRGB) or specify the grayscale type for editing the solid color. For the other cases, specify the grayscale type for editing the color. Then, issue the command again.

5032-113: Cannot edit color '*Catalog_name.Palette_name.Ink_name*' for palette 'XEROX1. '*Palette_name*' in the ink correlation table. Color type is grayscale, but associated palette type is CIELAB.

Explanation: InfoPrint XT edits a color in the ink correlation table, but the type of the color is grayscale and the type of the associated palette is CIELAB.

System action: InfoPrint XT cannot process the request.

User response: For the case of the solid colors, specify '**-p yes**' option for editing the solid color of type grayscale in order to overwrite the CIELAB palette with a grayscale palette or specify the CIELAB type for editing the solid color. For the other cases, specify the CIELAB type for editing the color. Then, issue the command again.

5032-114: Cannot find -t option parameters for selecting a color in the ink correlation table.

Explanation: You issued a command to select a color in the ink correlation table, but, InfoPrint XT could not find parameters for the '**-t**' option.

System action: InfoPrint XT cannot process the request.

User response: Specify both the '**-n** (color name)' and '**-t** (shading control)' parameters. Then, issue the command again.

5032-115: Cannot find '-e *option_string*' parameter shading or color values for editing an ink in the ink correlation table.

Explanation: You issued a command to edit an ink in the ink correlation table, but InfoPrint XT could not find shading control or color values.

System action: InfoPrint XT cannot process the request.

User response: Specify the shading control or the color values for the specified color. Then, issue the command again.

5032-116: Cannot load color '*Catalog_name.Palette_name.Ink_name*' for palette 'XEROX1. '*Palette_name*' from the manual ink correlation table. Color type is CIELAB, but associated palette type is grayscale.

Explanation: InfoPrint XT loads a color from the manual ink correlation table, but the type of the color is CIELAB and the type of the associated palette is grayscale.

System action: InfoPrint XT cannot process the request.

User response: For the case of the solid colors, specify '**-p yes**' option for loading the solid color of type CIELAB in order to overwrite the grayscale palette with a CIELAB palette or specify the grayscale type for loading the solid color. For the other cases, specify the grayscale type for loading the color. Then, issue the command again.

5032-117: Cannot load color '*Catalog_name.Palette_name.Ink_name*' for palette 'XEROX1. '*Palette_name*' from the manual ink correlation table. Color type is sRGB, but associated palette type is grayscale.

Explanation: InfoPrint XT loads a color from the manual ink correlation table, but the type of the color is sRGB and the type of the associated palette is grayscale.

System action: InfoPrint XT cannot process the request.

User response: For the case of the solid colors, specify '**-p yes**' option for loading the solid color of type sRGB in order to overwrite the grayscale palette with a sRGB palette or specify the grayscale type for loading the solid color. For the other cases, specify the grayscale type for loading the color. Then, issue the command again.

5032-118: Cannot load color '*Catalog_name.Palette_name.Ink_name*' for palette 'XEROX1. '*Palette_name*' from the manual ink correlation table. Color type is grayscale, but associated palette type is CIELAB.

Explanation: InfoPrint XT loads a color from the manual ink correlation table, but the type of the color is grayscale and the type of the associated palette is CIELAB.

System action: InfoPrint XT cannot process the request.

User response: For the case of the solid colors, specify '**-p yes**' option for loading the solid color of type grayscale in order to overwrite the CIELAB palette with a grayscale palette or specify the CIELAB type for loading the solid color. For the other cases, specify the CIELAB type for loading the color. Then, issue the command again.

5032-119: Option '-r *option_string*' contains too many parameters for copying a solid color in the ink correlation table.

Explanation: You issued a command to copy a solid color in the ink correlation table and included too many parameters for the '**-r**' option

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-120: Option '-u *option_string*' contains too many parameters for deleting a solid color from the ink correlation table.

Explanation: You issued a command to delete a solid color from the ink correlation table and included too many parameters for the '**-u**' option

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-121: Cannot find -r option parameters for copying a solid color in the ink correlation table.

Explanation: InfoPrint XT could not find parameters for the '**-r**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-122: Cannot find -u option parameters for deleting a solid color from the ink correlation table.

Explanation: You issued a command to delete a solid color from the ink correlation table, but InfoPrint XT could not find parameters for the '**-u**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-123: Incorrect number '-r *copy_option_string*' option parameters for copying a solid color in the ink correlation table.

Explanation: You issued a command to copy a solid color in the ink correlation table, but the number of parameters for the '**-r**' option is not correct.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-124: Incorrect '-r *color_copy_option_value*' parameter color name length for copying a solid color in the ink correlation table.

Explanation: You issued a command to copy a solid color in the ink correlation table, but the length of the color names for the '-r' option is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax, then issue the command again.

5032-125: Incorrect number of '-u *delete_option_string*' option parameters for deleting a solid color from the ink correlation table.

Explanation: You issued a command to delete a solid color from the ink correlation table, but the number of parameters for the '**-u**' option is not correct.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-126: Incorrect '-u *color_delete_option_value*' parameter color name length for deleting a solid color from the ink correlation table.

Explanation: You issued a command to delete a solid color from the ink correlation table, but the length of the color names for the '**-u**' option is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-127: Incorrect '-u *Delete_option_string*' option parameter '*Delete_option_parameter*' for deleting a solid color from the ink correlation table.

Explanation: You issued a command to delete a solid color from the ink correlation table, but the parameter of the '**-u**' option is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-128: Cannot delete standard solid color '*Standard solid color name*'.

Explanation: InfoPrint XT cannot delete a standard solid color.

System action: InfoPrint XT cannot process the request.

User response: Specify a solid color name that is not one of the Xerox standard solid colors. Then, issue the command again.

5032-129: Cannot use the 'pdxtcolor -f copy' function for overwriting standard solid color '*Standard_solid_color_name*'.

Explanation: The **'pdxtcolor -f copy'** function cannot overwrite a standard solid color.

System action: InfoPrint XT cannot process the request.

User response: Specify a solid color name that is not one of the Xerox standard solid colors. Then, issue the command again.

5032-130: Option '-c *option_string*' contains too many parameters for generating color collections in the ink correlation table.

Explanation: You issued a command to generate color collections in the ink correlation table and included too many parameters for the '**-c**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-131: Cannot find the '-c' option parameters for generating color collections in the ink correlation table.

Explanation: You issued a command to generate color collections in the ink correlation table, but InfoPrint XT could not find parameters for the '**-c**' option.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-132: Incorrect number of '-c *generate_option_string*' option parameters for generating color collections in the ink correlation table.

Explanation: You issued a command to generate color collections in the ink correlation table, but the number of parameters for the '**-c**' option is not correct.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-133: Incorrect '-c *Collections_option_string*' option parameter '*Collections_option_parameter*' for generating color collections in the ink correlation table.

Explanation: You issued a command to generate color collections in the ink correlation table, but the parameter of the '**-c**' option is not valid.

System action: InfoPrint XT cannot process the request.

User response: Review the command syntax. Then, issue the command again.

5032-134: Cannot find predefined collection colors for sampling with '-s *collection_colors*'.

Explanation: You issued a command, to sample the predefined colors, but InfoPrint XT cannot find the predefined solid colors created using the '**-f color_collections**' option.

System action: InfoPrint XT cannot process the request.

User response: Create the predefined collection colors in the ink correlation table, or use a different option for the sampling '**–s**' parameter.

DJDE report messages: ALTER through XMP

This section lists the possible messages that you might see in the Dynamic Job Descriptor Entry report generated byRICOH 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 data stream converter message (5019-nnn), you can find its explanation in Appendix E, Data stream converter messages: 5019-nnn X (xxx), p. 294.

Many of the messages in the DJDE report contain variable data, shown in italics, which RICOH InfoPrint XT replaces with specific information when it issues the messages. A vertical bar (|) between portions of variable data means that RICOH InfoPrint XT uses only one of the variable-data strings when it issues the message.

Note

1. Any value that specifies inches as a unit of measure can have up to three decimal places.
2. The default is that RICOH 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.
3. For a list of supported and unsupported DJDE commands, see Supported and unsupported Xerox DJDE and PDL commands, p. 22.

DJDE report message explanations

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 page segment. *x* and *y* are numeric values. *x* represents the horizontal coordinate. *y* represents the vertical coordinate. RICOH InfoPrint XT only includes the last sentence of the message when the scaling factor is a number other than 1.

ASSIGN - The data stream converter made these 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.

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* prints 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 - These overlays print on the back of subsequent sheets.

Overlay	copy ply
overlay1	*x* to *y*
overlayN	*x* to *y*

•
•
•

Explanation: The job specifies copy-sensitive forms. *overlay1* through *overlayN* identify the AFP overlays. The *Copy ply* column lists the report copies on which the associated overlay prints. *x* and *y* are numeric values.

BFORM - No overlay prints on the back of subsequent sheets.

Explanation: A BFORM=NONE DJDE cancelled a previous BFORM DJDE

BFORM - No overlay prints 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 in the data stream.

CANCEL - The data stream converter no longer prints these graphics on each page automatically:

.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 does not collate multi-copy reports.

Explanation: Specifies that RICOH InfoPrint XT does not collate the reports in the job.

COLLATE - The data stream converter collates multi-copy reports.

Explanation: Specifies that RICOH InfoPrint XT collates the reports in the job.

COPIES - The number of report copies is *number*.

Explanation: Specifies that the copies are report copies and the total number of copies is *nn*.

COPIES - The number of sheet copies is *number*.

Explanation: Specifies that the copies are sheet copies and the total number of copies is *nn*

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* (downloadable PDE - fonts is not used).

Explanation: Specifies that record *nn* contains one or more DJDEs *DJDE_record*.

Note

There is no DJDE with the name DJDE. The message title is for explanation retrievability only.

DJDE - The data stream converter found a DJDE identifier on record *line_number: djde_record* (downloadable PDE - fonts listed in FORMAT message).

Explanation: Specifies that record *nn* 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 is duplex.

Explanation: Specifies whether the print mode is duplex or simplex.

DUPLEX - The print mode is 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.

FCB - The data stream converter found an FCB on record *nn*. The current environment specifies *FCB=PROCESS* | *FCB=IGNORE*.

The data stream converter assigned FCB channel *channel_num* to line *line_num*

.
.
.

The data stream converter assigned FCB channel *channel_num* to line *line_num*
FCB BOF (bottom of form) line number is *nn*.

Explanation: RICOH InfoPrint XT found a LOAD FCB (forms control buffer; channel command X'63') in the input data stream. If the current environment is FCB=PROCESS, the FCB becomes effective immediately. RICOH InfoPrint XT lists the new channel assignments and BOF after this message. If the current environment is FCB=IGNORE, RICOH InfoPrint XT saves the FCB for possible use if the environment changes to FCB=PROCESS later in the job.

FCB - JDL *JDL_name* | JDE *JDE_name* specified no VFU channel assignments. The data stream converter uses the FCB found on record *nn* instead.

The data stream converter assigned FCB channel *channel_num* to line *line_num*
.
.
.
The data stream converter assigned FCB channel *channel_num* to line *line_num*
FCB BOF (bottom of form) line number is *nn*.

Explanation: The environment is FCB=PROCESS and the invoked JDL or JDE does not specify any channel assignments. The data stream converter uses the VFU channel assignments of the most recently found FCB. RICOH InfoPrint XT lists the FCB channel assignments and BOF after this message.

FCB - The data stream converter uses the FCB on record *nn* instead of the VFU of the starting JDL / JDE environment restored by an RSTACK.

The data stream converter assigned FCB channel *channel_num* to line *line_num*
.
.
.
The data stream converter assigned FCB channel *channel_num* TO line *line_num*
FCB BOF (bottom of form) line number is *nn*..

Explanation: The environment is FCB=PROCESS and RICOH InfoPrint XT found an RSTACK. Although the RSTACK has restored the environment of the starting JDL / JDE, the data stream converter uses the VFU channel assignments of the most recently found FCB. RICOH InfoPrint XT lists the FCB channel assignments and BOF after this message.

FEED - The input tray is *AUX*.

Explanation: Specifies the tray that contains the medium on which the job prints.

FEED - The input tray is *MAIN*.

Explanation: Specifies the tray that contains the medium on which the job prints.

FEED - The input media source is tray *mmc_tray*.

Explanation: Specifies the tray that contains the medium on which the job prints, based on a valid cluster database. *nn* is an integer value.

FEED - The input media source is INIFEED tray *mmc_tray*.

Explanation: You specified a valid cluster database. RICOH InfoPrint XT indicates the number of the input tray with *mmc_tray*. If RICOH InfoPrint XT finds a STOCKS DJDE, but the DJDE packet does not specify FEED, it uses the INIFEED tray.

FONTINDEX - The data stream converter no longer uses 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 interprets input data bytes at offset *offset* as table reference characters. The table reference characters number the fonts from *number* and contain font references in the low-order *bits* 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.

FONTS - The number of fonts listed is *number*.

.fnt name	AFP name(s)	line spacing value
fnt_name	*afp_name*	*x* inches or *y* pels
fnt_name	*afp_name*	*x* inches or *y* pels
.		
.		
.		

Explanation: Specifies the fonts that the job lists. *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. *x* and *y* are numeric values.

FORMAT - The number of fonts listed is *number*.

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 ($).

System Action: RICOH InfoPrint XT cannot process the font.

User response: Correct the name of the font identified in the message and do the action again.

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 is *x*.

.fnt name	AFP name(s)	Line spacing value
fnt_name	*afp_name*	*x* **inches or** *y* **pels**
fnt_name	*afp_name*	*x* **inches or** *y* **pels**
.		
.		
.		

Explanation: Specifies the fonts that the job lists. *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. x and y are numeric values.

FORMAT - A DJDE referenced PDE *pde_name*. The PDE contains this information:

The print mode is *portrait* | *landscape*

The number of fonts listed is *x*

.fnt name	AFP name(s)	line spacing value
fnt_name	*afp_name*	*x* **inches or** *y* **pels**
fnt_name	*afp_name*	*x* **inches or** *y* **pels**
.		
.		
.		

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. RICOH 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 prints 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* prints on the front of subsequent sheets

Explanation: The FORMS DJDE specifies one form and specifies either SIMPLEX or FORM. *overlay_name* identifies the AFP overlay that prints on the front of subsequent sheets.

FORMS - The overlay *overlay_name* prints 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 - These overlays print on the front of subsequent sheets.

Overlay	copy ply
overlay_name1	*x* to *y*
overlay_nameN	*x* to *y*

•
•
•

Explanation: The job specifies copy-sensitive forms and either SIMPLEX or FORM. *overlay_name1* through *overlay_nameN* identify the names of the AFP overlays. The *Copy ply* column lists the report copies on which the associated overlay prints. *x* and *y* are numeric 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 prints | does not automatically print the graphic on each page. The requested graphic scaling factor was *number*.

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. RICOH InfoPrint XT indicates whether it automatically prints the graphic on each page. RICOH InfoPrint XT only includes the last sentence of the message when the scaling factor is a number other than 1.

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 automatically prints the graphic on each page. The requested graphic scaling factor was *number*.

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. RICOH InfoPrint XT indicates whether it automatically prints the graphic on each page. RICOH InfoPrint XT only includes the last sentence if the scaling factor is a number other than 1.

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 does not automatically print the graphic on each page. The requested graphic scaling factor was *number*.

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. RICOH InfoPrint XT indicates whether it automatically prints the graphic on each page. RICOH InfoPrint XT only includes the last sentence if the scaling factor is a number other than 1.

IMAGE - A DJDE referenced one or more BATCH mode graphic images. The converter automatically prints each graphic on a separate page at image position (*x,y*) inches or (*x,y*) pels.

Explanation: RICOH InfoPrint XT automatically prints each graphic on a separate page at specified image position.

INVERT: The data stream converter ignores INVERT DJDEs because of conversion parameters in effect.

Explanation: The data stream converter found an INVERT DJDE, but the conversion parameters include **xhonorinvert=no**, which is the default. RICOH InfoPrint XT does not invert the output.

INVERT - The data stream converter inverts 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 inverts 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 inverts output on both sides of subsequent sheets.

Explanation: Specifies that front side and back side printing are inverted.

INVERT - The data stream converter does not invert output on subsequent sheets.

Explanation: Specifies that front side and back side printing are not inverted.

ITEXT - The data stream converter does not support the ITEXT DJDE.

Explanation: An ITEXT DJDE, which RICOH 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*.

LPI - New line spacing specified for line range *line_range*. RICOH InfoPrint XT spaces the lines by *spacing_value*.

Explanation: RICOH InfoPrint XT specifies the new line spacing value for the text lines included in the specific range. The units can be LPI, DOTS or XDOTS.

MARGIN - The left margin is *position_count* positions.

Explanation: RICOH InfoPrint XT calculates the left margin by multiplying the average character width of the font in effect by *nn*. *nn* is a numeric value.

MARGIN - The left margin is *x* inches or *y* pels.

Explanation: The job specifies a left margin in terms of inches or centimeters, rather than positions. *nn* is a numeric values. RICOH InfoPrint XT uses pels as the unit of measure.

MODIFY - The data stream converter does not apply a CME to the input data.

Explanation: No copy modifications are in effect, starting at the point in the job where RICOH InfoPrint XT found this DJDE.

MODIFY - The data stream converter applies 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 applies these CMEs:

CME name	copy ply
cme_name	*x to y*
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. The *Copy ply* column lists the report copies to which the associated CME applies. *nn*, *x* and *y* are integer values.

NUMBER - The data stream converter does not number output pages.

Explanation: The job contains a NUMBER=NO DJDE. RICOH InfoPrint XT does not number pages.

NUMBER - The data stream converter numbers output pages by using font: *font_name*. The first page number is: *nn*.

Explanation: The job contains a NUMBER DJDE that defines the numbering of the output pages. RICOH InfoPrint XT report the location of the page number as line *nn* and column *nn*. *nn* is an integer value.

OVERPRINT - The data stream converter prints overprint lines.

Explanation: Specifies whether the OVERPRINT option is PRINT.

OVERPRINT - The data stream converter ignores overprint lines.

Explanation: Specifies whether the OVERPRINT option is IGNORE.

OVERPRINT - The data stream converter merges overprint lines.

Explanation: Specifies whether the OVERPRINT option is MERGE..

OVERPRINT - The data stream converter prints only the first line in each group of overprint lines.

Explanation: Specifies that the OVERPRINT option is PRINT2.

PMODE - The print mode is landscape.

Explanation: Specifies whether the print mode is landscape

PMODE - The print mode is portrait.

Explanation: Specifies whether the print mode is portrait.

RAUX - The data stream converter selected the alternate paper source.

Explanation: Specifies that RICOH InfoPrint XT pulls one sheet from the alternate paper tray.

RFORM - The overlay: *overlay_name* prints on the front of routing text pages.

Explanation: Specifies that the AFP overlay *overlay_name* prints on all RTEXT pages.

ROFFSET - The data stream converter offsets the current sheet.

Explanation: An ROFFSET statement is present. RICOH InfoPrint XT offsets the current sheet.

ROFFSET - The data stream converter offsets the current report.

Explanation: An ROFFSET statement is present. RICOH InfoPrint XT offsets the current report.

RPAGE - The current logical page moves to the back of a new sheet.

Explanation: The job specifies RPAGE WHEN=TOP and the SIDE= parameter forces the start of a new sheet. The logical page moves to the **back** of a new sheet.

RPAGE - The current logical page moves to the front of a new sheet.

Explanation: The job specifies RPAGE WHEN=TOP and the SIDE= parameter forces the start of a new sheet. The logical page moves to the **front** of a new sheet.

RPAGE - The current logical page moves to the back of the current sheet.

Explanation: A specification of SIDE=NEXT or SIDE=BACK forces output to the **back** of the current sheet.

RPAGE - The next logical page begins on the back of a new sheet.

Explanation: The job specifies RPAGE WHEN=BOTTOM and the SIDE= parameter forces the start of a new sheet. The page begins on the **back** of the new sheet.

RPAGE - The next logical page begins on the front of a new sheet.

Explanation: The job specifies RPAGE WHEN=BOTTOM and the SIDE= parameter forces the start of a new sheet. The page begins on the **front** of the new sheet.

RPAGE - The next logical page begins on the back of the current sheet.

Explanation: A specification of SIDE=NEXT or SIDE=BACK does not force a new sheet.

RPAGE - The remaining text for the logical page moves to the back of a new sheet.

Explanation: The job specifies RPAGE WHEN=NOW and the SIDE= parameter forces the start of a new sheet. The remaining text moves to the **back** of the new sheet.

RPAGE - The remaining text for the logical page moves to the front of a new sheet.

Explanation: The job specifies RPAGE WHEN=NOW and the SIDE= parameter forces the start of a new sheet. The remaining text moves to the **front** of the new sheet.

RPAGE - The remaining text for the logical page moves to the back of the current sheet.

Explanation: This message occurs when the job specifies RPAGE WHEN=NOW and the SIDE= parameter does not force a new sheet. The remaining text moves to the **back** of the new sheet.

RRESUME - Printing resumes. The RRESUME record prints.

Explanation: Specifies that the current record prints when printing resumes.

RRESUME - Printing resumes. The RRESUME record does not print.

Explanation: Specifies that the current record does not print when printing resumes

RSTACK - The data stream converter found the end of the current report. The RSTACK record prints.

Explanation: The starting print environment is now in effect. The RSTACK record prints.

RSTACK - The data stream converter found the end of the current report. The RSTACK record does not print.

Explanation: The starting print environment is now in effect. The RSTACK record does not print.

RSUSPEND - The data stream converter suspends printing until it finds the end of the report or an RRESUME record. The RSUSPEND record prints.

Explanation: Specifies that print retention starts with the current record. The RSUSPEND record prints.

RSUSPEND - The data stream converter suspends printing until it finds the end of the report or an RRESUME record. The RSUSPEND record does not print.

Explanation: Specifies that print retention starts with the current record. The RSUSPEND record does not print.

RTEXT - A DJDE provided this routing text information:

Report copy	Line:	Column:	Xerox font name	AFP name:
copy_num	*line_num*	*column_num*	*xrx_name*	*afp_name*
copy_num	*line_num*	*column_num*	*xrx_name*	*afp_name*
.				
.				
.				

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 does 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 RICOH InfoPrint XT does not support, is present.

SEFFNT - The data stream converter does not support the SEFFNT DJDE.

Explanation: A SEFFNT DJDE, which RICOH InfoPrint XT does not support, is present.

SEFMAP - The data stream converter does not support the SEFMAP DJDE.

Explanation: A SEFMAP DJDE, which RICOH InfoPrint XT does not support, is present.

SHIFT - The data stream converter ignores SHIFT DJDEs because of conversion parameters in effect.

Explanation: The data stream converter found a SHIFT or XSHIFT DJDE, but the conversion parameters include **xhonorshift=no**, which is the default. RICOH InfoPrint XT does not shift the output.

SHIFT - Printing on subsequent sheets does not shift to the left or right.

Explanation: The data stream converter found a SHIFT=NO or XSHIFT=NO DJDE, which prevents the output from shifting in the directions specified.

SHIFT - Printing on subsequent sheets does not shift to the up or down.

Explanation: The data stream converter found a SHIFT=NO or XSHIFT=NO DJDE, which prevents the output from shifting in the directions specified.

SHIFT - Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

SHIFT - Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

SHIFT - Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

SHIFT - Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT - Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SHIFT - Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified

SIDE - The current logical page begins on the back of a new sheet.

Explanation: The SIDE= specification forces the start of a new sheet. The page begins on the back of a new sheet.

SIDE - The current logical page begins on the front of a new sheet.

Explanation: The SIDE= specification forces the start of a new sheet. The page begins on the front of a new sheet.

STOCKS - A DJDE specified STOCKSET *stk_name*.

Command	Stock Reference	Cluster Name	Media Source
INIFEED	***stk_ref***	***cl_name***	***mmc_tray***
SYSPAGE	***stk_ref***	***cl_name***	***mmc_tray***
ASSIGN	***stk_ref***	***cl_name***	***mmc_tray***

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 RICOH InfoPrint XT uses if no OUTPUT FEED or OUTPUT DJDE commands are in effect. SYSPAGE identifies the stock that RICOH 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 ignores 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 RICOH 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 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 RICOH InfoPrint XT does not support, is present.

XSHIFT- The data stream converter ignores XSHIFT DJDEs because of conversion parameters in effect.

Explanation: The data stream converter found a SHIFT or XSHIFT DJDE, but the conversion parameters include **xhonorshift=no**, which is the default. RICOH InfoPrint XT does not shift the output.

XSHIFT- Printing on subsequent sheets does not shift to the left or right.

Explanation: The data stream converter found a SHIFT=NO or XSHIFT=NO DJDE, which prevents the output from shifting in the directions specified.

XSHIFT- Printing on subsequent sheets does not shift to the up or down.

Explanation: The data stream converter found a XSHIFT=NO or XSHIFT=NO=NO DJDE, which prevents the output from shifting in the directions specified.

XSHIFT- Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A XSHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets does not shift on front sides, but shifts *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing does not shift. Back side printing shifts *nn* inches in the direction specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, but does not shift on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches in the direction specified. Back side printing does not shift. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the left on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) to the right on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) up on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) to the left on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) to the right on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) up on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

XSHIFT- Printing on subsequent sheets shifts *fr_inches* inches (*ft_pels* pels) down on front sides, and *bk_inches* inches (*bk_pels* pels) down on back sides.

Explanation: A SHIFT or XSHIFT DJDE specified that front side printing shifts *nn* inches and back side printing shifts *nn* inches in the directions specified. *nn* is a numeric value.

12. Return codes

- **Return codes for AIX**
- **Return codes for Windows**
- **Return codes for Linux**

The next two tables describe the return codes/`errno` values that some RICOH InfoPrint XT for Linux messages contain:

Return codes for AIX

The next two tables describe the return codes/`errno` values that some RICOH InfoPrint XT for Linux messages contain:

Return code numbers 1–64 in RICOH InfoPrint XT messages

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
1	EPERM	Operation not permitted	33	EDOM	A parameter to a math subroutine is not in the domain
2	ENOENT	A file or directory in the path name does not exist	34	ERANGE	A return value of a math subroutine is not within machine precision
3	ESRCH	The process does not exist	35	ENOMSG	The specified message type does not exist on a message queue
4	EINTR	A system call received an interrupt	36	EIDRM	An identifier does not exist
5	EIO	There is an input or output error	37	ECHRNG	Channel number out of range
6	ENXIO	There is a request to a device or address that does not exist	38	EL2NSYNC	Level 2 not synchronized
7	E2BIG	The parameter or environment lists are too long	39	EL3HLT	Level 3 halted
8	ENOEXEC	Cannot run a file that does not have a valid format	40	EL3RST	Level 3 reset
9	EBADF	A file descriptor does not refer to an open file	41	ELNRNG	Link number out of range
10	ECHILD	There are no child processes	42	EUNATCH	Protocol drive not attached
11	EAGAIN	Resource temporarily unavailable	43	ENOCSI	No CSI structure available

12	ENOMEM	There is not enough memory available now	44	EL2HLT	Level 2 halted
13	EACCES	The file access permissions do not allow the specified action	45	EDEADLK	Cannot lock a file because of a potential deadlock condition
14	EFAULT	A memory address is not in the address space for the process	46	ENOT-READY	The device is not ready for operation
15	ENOTBLK	A specified file must be a block device	47	EWRPRO-TECT	The input or output media is write-protected
16	EBUSY	The requested resource is busy	48	EFORMAT	The media is not formatted or the format is not correct
17	EEXIST	Do not specify an existing file	49	ENOLCK	The system lock table is full
18	EXDEV	Cannot link to a file on another device	50	ENO-CONNECT	Cannot establish a connection to a remote service
19	ENODEV	The specified device does not exist	51		A connection to a remote service is not available
20	ENOTDIR	A parameter must be a directory	52	ESTALE	A file, file system or message queue is no longer available
21	EISDIR	Cannot write to a directory	53	EDIST	System call errnr number 53
22	EINVAL	A system call received a parameter that is not valid	54	EWOULD-BLOCK	The system call would have caused the process to be suspended
23	ENFILE	The system file table is full	55	EINPRO-GRESS	A connect operation on a socket is not complete
24	EMFILE	The process file table is full	56	EALREADY	A socket operation is already in progress
25	ENOTTY	A specified file does not support the ioctl system call	57	ENOT-SOCK	The specified file descriptor is not a socket
26	ETXTBSY	Cannot open or remove a file	58	EDEST-ADDRREQ	There is no destination address for the socket operation

		containing a running program			
27	EFBIG	A file cannot be larger than the value set by ulimit	59	EMSGSIZE	A message for a socket data transfer is too long
28	ENOSPC	There is not enough space in the file system	60	EPROTO-TYPE	The socket type or protocols are not compatible
29	ESPIPE	A file or device is not appropriate for the lseek system call	61	ENOPRO-TOOPT	The protocol does not support the specified option
30	EROFS	The file system has read permission only	62	EPROTO-NOSUP-PORT	No protocol of the specified type and domain exists
31	EMLINK	There are too many links to a file	63	ESOCK-NOSUP-PORT	The specified socket type is not supported
32	EPIPE	There is no process to read data written to a pipe	64	EOPNOT-SUPP	The socket does not allow the requested operation

Return code numbers 65–127 in RICOH InfoPrint XT messages

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
65	EPFNO-SUPPORT	The socket protocol family not supported	89	ECOR-RUPT	Invalid file system control data detected
66	EAFNO-SUPPORT	The type of socket is not supported in this protocol family	90–92		Reserved
67	EADDR-INUSE	The socket name is already in use	93	EREMOTE	Cannot mount a file system that is already remotely mounted
68	EADDR-NOTA-VAIL	The socket name is not available on this system	94–108		Reserved
69	ENET-DOWN	The network is not currently available	109	ENOSYS	The system call does not exist on this system
70	ENETUN-REACH	Cannot reach the destination network	110	EMEDIA	The media surface is damaged
71	ENETRE-SET	A socket is connected to a host that is no longer available	111	ESOFT	The operation required corrective action

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
72	ECONN-ABORTED	A connection is ended by software	112	ENOATTR	Cannot find the requested security attribute
73	ECONN-RESET	A connection with a remote socket was reset by that socket	113	ESAD	Security authentication is denied
74	ENOBUFS	There is not enough buffer space for the requested socket operation	114	ENO-TRUST	Cannot run the specified program in a trusted environment
75	EISCONN	Cannot connect to a socket that is already connected	115	ETOOMA-NYREFS	Too many references; cannot splice
76	ENOT-CONN	A socket must be already connected	116	EILSEQ	Invalid wide character
77	ESHUT-DOWN	Cannot send data after a shutdown operation on a socket	117	ECAN-CELED	Asynchronous I/O cancelled
78	ETIMED-OUT	A remote host did not respond within the timeout period	118	ENOSR	Out of STREAMS resources
79	ECONN-REFUSED	A route to the remote host is not available	119	ETIME	System call timed out
80	EHOST-DOWN	A remote host is not available	120	EBADMSG	Message type at stream head is wrong
81	EHOST-UNREACH	A route to the remote host is not available	121	EPROTO	Error in STREAMS protocol
82	ERESTART	The system call will be restarted	122	ENODATA	No message ready at stream head
83	EPROCLIM	Cannot exceed the user process limit	123	ENOSTR	File descriptor (fd) not associated with a stream
84	EUSERS	There are too many users on the system	124	ENOTSUP	An attempt was made to set an attribute to an unsupported value
85	ELOOP	There are too many levels of symbolic links to translate a path name	125	EMULTI-HOP	Multihop access to a remote resource not supported

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
86	ENAME-TOO-LONG	A file or path name is too long	126	ENOLINK	Communications link to server, for requested resource, has been lost
87	ENOT-EMPTY	Cannot delete a directory that is not emptyv	127	EOVER-FLOW	Value too large to be stored in data type
88	EDQUOT	Cannot exceed the user or group quota			

Return codes for Windows

The next two tables describe the return codes/`errno` values that some RICOH InfoPrint XT for Linux messages contain:

Return code numbers 1–42 in RICOH InfoPrint XT messages

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
1	EPERM	Operation not permitted	22	EINVAL	Invalid argument
2	ENOENT	No such file or directory	23	ENFILE	Too many open files in system
3	ESRCH	No such process	24	EMFILE	Too many open files
4	EINTR	Interrupted function call	25	ENOTTY	Inappropriate I/O control operation
5	EIO	Input/output error	26		Reserved
6	ENXIO	No such device or address	27	EFBIG	File too large
7	E2BIG	Arg list too long	28	ENOSPC	No space left on device
8	ENOEXEC	Exec format error	29	ESPIPE	Invalid seek
9	EBADF	Bad file descriptor	30	EROFS	Read-only file system
10	ECHILD	No child processes	31	EMLINK	Too many links
11	EAGAIN	Resource temporarily unavailable	32	EPIPE	Broken pipe
12	ENOMEM	Not enough space	33	EDOM	Domain error
13	EACCES	Permission denied	34	ERANGE	Result too large
14	EFAULT	Bad address	35		Reserved

15		Reserved	36	EDEADLK	Resource deadlock avoided
16	EBUSY	Resource device	37		Reserved
17	EEXIST	File exists	38	ENAME-TOOLONG	File name too long
18	EXDEV	Improper link	39	ENOLCK	No locks available
19	ENODEV	No such device	40	ENOSYS	Function not implemented
20	ENOTDIR	Not a directory	41	ENOT-EMPTY	Directory not empty
21	EISDIR	Is a directory	42	EILSEQ	Illegal byte sequence

Return codes for Linux

Return code numbers 1–74 in RICOH InfoPrint XT messages

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
1	EPERM	Operation not permitted	38	ENOSYS	Function not implemented
2	ENOENT	No such file or directory	39	ENOTEMP-TY	Directory not empty
3	ESRCH	No such process	40	ELOOP	Too many levels of symbolic links
4	EINTR	Interrupted system call	41	EWOULD-BLOCK	See EAGAIN
5	EIO	Input/output error	42	ENOMSG	No message of desired type
6	ENXIO	No such device or address	43	EIDRM	Identifier removed
7	E2BIG	Argument list too long	44	ECHRNG	Channel number out of range
8	ENOEXEC	Exec format error	45	EL2NSYNC	Level 2 not synchronized
9	EBADF	Bad file descriptor	46	EL3HLT	Level 3 halted
10	ECHILD	No child processes	47	EL3RST	Level 3 reset
11	EAGAIN	Resource temporarily unavailable	48	ELNRNG	Link number out of range
12	ENOMEM	Cannot allocate memory	49	EUNATCH	Protocol driver not attached

13	EACCES	Permission denied	50	ENOCSI	No CSI structure available
14	EFAULT	Bad address	51	EL2HLT	Level 2 halted
15	ENOTBLK	Block device required	52	EBADE	Invalid exchange
16	EBUSY	Device or resource busy	53	EBADR	Invalid request descriptor
17	EEXIST	File exists	54	EXFULL	Exchange full
18	EXDEV	Invalid cross-device link	55	ENOANO	No anode
19	ENODEV	No such device	56	EBADRQC	Invalid request code
20	ENOTDIR	Not a directory	57	EBADSLT	Invalid slot
21	EISDIR	Is a directory	58	EDEAD-LOCK	See EDEADLK
22	EINVAL	Invalid argument	59	EBFONT	Bad font file format
23	ENFILE	Too many open files in system	60	ENOSTR	Device not a stream
24	EMFILE	Too many open files	61	ENODATA	No data available
25	ENOTTY	Inappropriate ioctl for device	62	ETIME	Timer expired
26	ETXTBSY	Text file busy	63	ENOSR	Out of streams resources
27	EFBIG	File too large	64	ENONET	Machine is not on the network
28	ENOSPC	No space left on device	65	ENOPKG	Package not installed
29	ESPIPE	Illegal seek	66	EREMOTE	Object is remote
30	EROFS	Read-only file system	67	ENOLINK	Link has been severed
31	EMLINK	Too many links	68	EADV	Advertise error
32	EPIPE	Broken pipe	69	ESRMNT	Srmount error
33	EDOM	Numerical argument out of domain	70	ECOMM	Communication error on send
34	ERANGE	Numerical result out of range	71	EPROTO	Protocol error
35	EDEADLK	Resource deadlock avoided	72	EMULTI-HOP	Multihop attempted
36	ENAME-TOO-LONG	File name too long	73	EDOTDOT	RFS specific error
37	ENOLCK	No locks available	74	EBADMSG	Bad message

Return code numbers 75–133 in RICOH InfoPrint XT messages

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
75	EOVER-FLOW	Value too large for defined data type	105	ENOBUFS	No buffer space available
76	ENOTU-NIQ	Name not unique on network	106	EISCONN	Transport endpoint is already connected
77	EBADFD	File descriptor in bad state	107	ENOT-CONN	Transport endpoint is not connected
78	EREMCHG	Remote address changed	108	ESHUT-DOWN	Cannot send after transport endpoint shutdown
79	ELIBACC	Can not access a needed shared library	109	ETOOMA-NYREFS	Too many references: cannot splice
80	ELIBBAD	Accessing a corrupted shared library	110	ETIMED-OUT	Connection timed out
81	ELIBSCN	.lib section in a.out corrupted	111	ECONN-REFUSED	Connection refused
82	ELIBMAX	Attempting to link in too many shared libraries	112	EHOST-DOWN	Host is down
83	ELIBEXEC	Cannot exec a shared library directly	113	EHOSTUN-REACH	No route to host
84	EILSEQ	Invalid or incomplete multibyte or wide character	114	EALREADY	Operation already in progress
85	ERESTART	Interrupted system call should be restarted	115	EINPRO-GRESS	Operation now in progress
86	ESTRPIPE	Streams pipe error	116	ESTALE	Stale NFS file handle
87	EUSERS	Too many users	117	EUCLEAN	Structure needs cleaning
88	ENOT-SOCK	Socket operation on non-socket	118	ENOT-NAM	Not a XENIX named type file
89	EDES-TADDRREQ	Destination address required	119	ENAVAIL	No XENIX semaphores available
90	EMSGSIZE	Message too long	120	EISNAM	Is a named type file
91	EPROTO-TYPE	Protocol wrong type for socket	121	EREMO-TEIO	Remote I/O error
92	ENOPRO-TOOPT	Protocol not available	122	EDQUOT	Disk quota exceeded

Error	Symbolic constant	Explanation:	Error	Symbolic constant	Explanation:
93	EPROTO-NOSUP-PORT	Protocol not supported	123	ENOMEDI-UM	No medium found
94	ESOCKT-NOSUP-PORT	Socket type not supported	124	EMEDIUM-TYPE	Wrong medium type
95	EOPNOT-SUPP	Operation not supported	125	ECAN-CELED	Operation canceled
96	EPFNO-SUPPORT	Protocol family not supported	126	ENOKEY	Required key not available
97	EAFNO-SUPPORT	Address family not supported by protocol	127	EKEYEX-PIRED	Key has expired
98	EADDRI-NUSE	Address already in use	128	EKEYRE-VOKED	Key has been revoked
99	EADDR-NOTAVAIL	Cannot assign requested address	129	EKEYRE-JECTED	Key was rejected by service
100	ENET-DOWN	Network is down	130	EOWNER-DEAD	Owner died
101	ENETUN-REACH	Network is unreachable	131	ENOTRE-COVERA-BLE	State not recoverable
102	ENETRESET	Network dropped connection on reset	132	ERFKILL	Operation not possible due to RF-kill
103	ECONNA-BORTED	Software caused connection abort	133	EHWPOI-SON	Memory page has hardware error
104	ECONN-RESET	Connection reset by peer			

13. InfoPrint XT Custom Color Collections

- **InfoPrint XT color collection organized by hue**
- **InfoPrint XT color collection organized by category**

The next two sections describe the InfoPrint XT color collections organized by hue and category. In each table, **L***, **a*** and **b*** represent CIELAB color space values, and **sRGB** represents **sRGB** color space values.

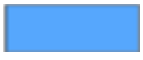
InfoPrint XT color collection organized by hue

The next *7* tables describe the InfoPrint XT color codes and names, organized by hue:

Purple

Sample	Color Name	L*	a*	b*	sRGB
	AMETHYST	34.97	39.96	-43.44	733799
	MOUNTAIN	30.92	16.62	-33.66	4B417E
	EGGPLANT	32.96	16.22	-3.76	644454
	GRAPE	41.98	23.34	-17.81	7E5581
	LAVENDER	62.53	38.30	-38.11	C07EDC
	LILAC	71.05	19.31	-14.00	C8A2C8
	PUCE	64.29	28.85	2.36	CD8899
	CARNATION	77.95	37.13	-3.58	FFA6C9
	FUSCHIA	73.52	57.87	-39.56	FF88FF
	HELIOTROPE	66.01	72.79	-51.35	F860FF

Blue

Sample	Color Name	L*	a*	b*	sRGB
	BLUEBERRY	20.42	3.85	-15.50	2D3048
	SAPPHIRE	17.17	14.96	-42.69	142569
	MIDNIGHT	24.11	5.92	-42.98	00397B
	COBALT	31.77	14.43	-59.89	0047AB
	PEACOCK	45.29	-9.13	-41.15	0872B0
	CORNFLOWER	66.31	-5.07	-50.98	56A7FD

Sample	Color Name	L*	a*	b*	sRGB
	SKY	82.25	-17.86	-27.24	88D8FF
	STEEL	78.26	-2.90	-15.43	B0C4DE
	SILVER	82.44	-4.42	-5.93	C0D0D8
	PRUSSIAN	25.45	-5.25	-26.19	104064
	INDIGO	27.67	-7.03	-29.09	00466E
	TEAL	41.73	-18.24	-23.15	0C6C88
	LAKE	54.80	-23.85	-26.34	1090B0
	TURQUOISE	64.85	-34.50	-18.93	00AFBE
	CAPRI	71.83	-24.07	-43.56	00BFFF

Green

Sample	Color Name	L*	a*	b*	sRGB
	FOREST	30.37	-26.05	2.31	005243
	PINE	37.38	-32.29	10.86	086545
	MALACHITE	44.53	-38.38	18.66	0F7948
	EMERALD	60.62	-47.57	20.14	18A76C
	JADE	72.45	-48.47	29.63	50C878
	MOSS	84.34	-23.93	19.12	ADDFAD
	CELADON	76.22	-9.30	6.78	AEC1AF
	LIME	61.32	-29.08	59.33	76A113
	OLIVE	52.43	-6.10	55.62	867F05

Brown

Sample	Color Name	L*	a*	b*	sRGB
	TAUPE	33.31	3.85	7.92	584C42
	SEPIA	33.03	17.65	35.00	704214

Sample	Color Name	L*	a*	b*	sRGB
	AUTUMN	39.00	35.75	49.91	984000
	BRONZE	60.77	26.60	52.84	CD7F32
	OAK	73.52	14.32	40.00	DEAA6B
	KHAKI	69.63	2.25	18.82	B8A888
	SAND	80.70	2.32	21.03	D8C6A1
	BEIGE	90.39	-2.53	25.67	EDE4B2
	MAUVE	58.35	31.41	10.85	C3767B
	ROSEWOOD	34.98	31.92	13.24	833B3F
	MAHOGANY	20.40	31.09	30.62	5D1800

Yellow

Sample	Color Name	L*	a*	b*	sRGB
	CHARTREUSE	94.59	-31.99	89.61	D6FF00
	BANANA	80.14	-5.45	68.84	D8C838
	LEMON	84.27	-3.28	80.11	EAD21C
	SUNSHINE	90.54	-3.27	58.15	F8E470
	ASPEN	94.45	-8.64	77.37	FFF24A
	GOLD	87.47	2.92	86.47	FFD701
	CITRINE	83.86	-0.23	81.13	EECF15
	SAFFRON	81.77	8.09	73.98	F4C430
	AMBER	81.62	14.62	82.79	FFBF00
	GOLDENROD	71.32	12.21	68.68	DAA520

Orange

Sample	Color Name	L*	a*	b*	sRGB
	TOPAZ	84.42	13.80	45.61	FFC87C
	APRICOT	78.19	26.05	40.02	FEAE78
	SUNRISE	72.60	32.09	39.67	F69A6B
	SALMON	70.81	42.32	38.87	FF8C69
	CORAL	66.03	52.70	42.27	FF7458
	CARROT	70.60	36.94	56.80	FA9044
	ORANGE	63.17	57.10	71.31	FF6608
	OCHRE	60.91	33.85	67.68	D97900
	COPPER	60.35	42.19	46.91	E07040
	RUST	44.73	47.17	52.28	B7410E

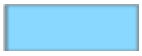
Red

Sample	Color Name	L*	a*	b*	sRGB
	TOMATO	55.49	57.09	45.76	E45139
	GARNET	50.83	72.57	57.36	E91E1A
	CHERRY	39.38	63.84	40.58	B90020
	CARNELIAN	35.72	58.10	37.86	A7091C
	BURGUNDY	30.14	53.28	27.92	900020
	JASPER	30.69	50.58	31.52	8F0F1B
	MAROON	23.58	45.83	18.44	740020
	ROSE	48.88	68.97	25.09	DB244F
	CRIMSON	48.43	71.37	36.82	DE173B
	BRICK	48.37	46.71	18.44	AE3F4B

InfoPrint XT color collection organized by category

The next 7 tables describe the InfoPrint XT color codes and names, organized by category:

Nature

Sample	Color Name	L*	a*	b*	sRGB
	MOUNTAIN	30.92	16.62	-33.66	4B417E
	MIDNIGHT	24.11	5.92	-42.98	00397B
	PEACOCK	45.29	-9.13	-41.15	0872B0
	LAKE	54.80	-23.85	-26.34	1090B0
	SKY	82.25	-17.86	-27.24	88D8FF
	FOREST	30.37	-26.05	2.31	005243
	SUNSHINE	90.54	-3.27	58.15	F8E470
	SAND	80.70	2.32	21.03	D8C6A1
	SUNRISE	72.60	32.09	39.67	F69A6B
	CORAL	66.03	52.70	42.27	FF7458

Gemstones

Sample	Color Name	L*	a*	b*	sRGB
	AMETHYST	34.97	39.96	-43.44	733799
	SAPPHIRE	17.17	14.96	-42.69	142569
	TURQUOISE	64.85	-34.50	-18.93	00AFBE
	MALACHITE	44.53	-38.38	18.66	0F7948
	EMERALD	60.62	-47.57	20.14	18A76C
	JADE	72.45	-48.47	29.63	50C878
	CITRINE	83.86	-0.23	81.13	EECF15
	AMBER	81.62	14.62	82.79	FFBF00
	TOPAZ	84.42	13.80	45.61	FFC87C

Sample	Color Name	L*	a*	b*	sRGB
	GARNET	50.83	72.57	57.36	E91E1A
	CARNELIAN	35.72	58.10	37.86	A7091C
	JASPER	30.69	50.58	31.52	8F0F1B

Foods

Sample	Color Name	L*	a*	b*	sRGB
	EGGPLANT	32.96	16.22	-3.76	644454
	GRAPE	41.98	23.34	-17.81	7E5581
	BLUEBERRY	20.42	3.85	-15.50	2D3048
	LIME	61.32	-29.08	59.33	76A113
	OLIVE	52.43	-6.10	55.62	867F05
	BANANA	80.14	-5.45	68.84	D8C838
	LEMON	84.27	-3.28	80.11	EAD21C
	ORANGE	63.17	57.10	71.31	FF6608
	CARROT	70.60	36.94	56.80	FA9044
	APRICOT	78.19	26.05	40.02	FEAE78
	SALMON	70.81	42.32	38.87	FF8C69
	TOMATO	55.49	57.09	45.76	E45139
	CHERRY	39.38	63.84	40.58	B90020
	BURGUNDY	30.14	53.28	27.92	900020

Shades

Sample	Color Name	L*	a*	b*	sRGB
	PRUSSIAN	25.45	-5.25	-26.19	104064
	INDIGO	27.67	-7.03	-29.09	00466E
	TEAL	41.73	-18.24	-23.15	0C6C88

Sample	Color Name	L*	a*	b*	sRGB
	CAPRI	71.83	-24.07	-43.56	00BFFF
	CHARTREUSE	94.59	-31.99	89.61	D6FF00
	CRIMSON	48.43	71.37	36.82	DE173B
	MAROON	23.58	45.83	18.44	740020

Neutral

Sample	Color Name	L*	a*	b*	sRGB
	TAUPE	33.31	3.85	7.92	584C42
	SEPIA	33.03	17.65	35.00	704214
	AUTUMN	39.00	35.75	49.91	984000
	OCHRE	60.91	33.85	67.68	D97900
	KHAKI	69.63	2.25	18.82	B8A888
	BEIGE	90.39	-2.53	25.67	EDE4B2
	PUCE	64.29	28.85	2.36	CD8899
	MAUVE	58.35	31.41	10.85	C3767B

Flora

Sample	Color Name	L*	a*	b*	sRGB
	LAVENDER	62.53	38.30	-38.11	C07EDC
	LILAC	71.05	19.31	-14.00	C8A2C8
	CARNATION	77.95	37.13	-3.58	FFA6C9
	FUSCHIA	73.52	57.87	-39.56	FF88FF
	HELIOTROPE	66.01	72.79	-51.35	F860FF
	CORNFLOWER	66.31	-5.07	-50.98	56A7FD
	PINE	37.38	-32.29	10.86	086545
	MOSS	84.34	-23.93	19.12	ADDFAD

Sample	Color Name	L*	a*	b*	sRGB
	ASPEN	94.45	-8.64	77.37	FFF24A
	SAFFRON	81.77	8.09	73.98	F4C430
	GOLDENROD	71.32	12.21	68.68	DAA520
	ROSE	48.88	68.97	25.09	DB244F

Materials

Sample	Color Name	L*	a*	b*	sRGB
	COBALT	31.77	14.43	-59.89	0047AB
	STEEL	78.26	-2.90	-15.43	B0C4DE
	SILVER	82.44	-4.42	-5.93	C0D0D8
	CELADON	76.22	-9.30	6.78	AEC1AF
	GOLD	87.47	2.92	86.47	FFD701
	OAK	73.52	14.32	40.00	DEAA6B
	BRONZE	60.77	26.60	52.84	CD7F32
	COPPER	60.35	42.19	46.91	E07040
	RUST	44.73	47.17	52.28	B7410E
	BRICK	43.37	46.71	18.44	AE3F4B
	ROSEWOOD	34.98	31.92	13.24	833B3F
	MAHOGANY	20.40	31.09	30.62	5D1800

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Glossary of selected RICOH terms

This glossary provides definitions of specialized terms that are used with InfoPrint XT, InfoPrint Manager and RICOH ProcessDirector. It does not include terms that non-technical dictionaries define, or that have no special meaning in information processing and printing.

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*.

additive primary colors

Red, green, and blue light, as, for example, transmitted in video monitors and televisions. When used in various degrees of intensity and variation, they create all other colors of light; when superimposed equally, they create white. Contrast with *subtractive primary colors*.

addressable point

In computer graphics, any point of a device that can be addressed.

Synonym for *pel*, or, in Xerox terminology, *dot*.

administrator

A person responsible for administrative tasks, such as access authorization and content management. Administrators can also grant levels of authority to users.

In InfoPrint Manager or RICOH ProcessDirector, the person who creates and manages one or more components of a printing system, such as servers and actual destinations. InfoPrint Manager or RICOH ProcessDirector gives the administrators the authorization to perform some InfoPrint Manager or RICOH ProcessDirector operations, and access to certain information that is not available to operators or job submitters.

In RICOH InfoPrint XT, the person who performs configuration tasks.

Advanced Function Presentation (AFP)

A set of licensed programs, together with user applications, that use the all-points-addressability concept. AFP allows you to print data on a wide variety of printers, or to view data on a variety of display devices. AFP includes creating, formatting, archiving, retrieving, view and distributing information.

Advanced Function Presentation data stream

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.

A data stream that includes composed text, page segments, electronic overlays, form definitions, and fonts.

AFP

Advanced Function Presentation. The RICOH printing and presentation architecture.

AFP resource directory

The directory in which RICOH InfoPrint XT stores the AFP versions of Xerox printable resources. The AFP resource directory is one of these:

- **/var/pdxt/resources/common**
- **/var/pdxt/resources/***resgrp*
- */OtherDirectory*

AFP resource path

One or more *AFP resource directories*.

American National Standards Institute

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.

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.

application program

A complete, self-contained program, such as an editor or electronic mail, that performs a specific task for the user, in contrast to system software, such as the operating system kernel, server processes, and program libraries.

In RICOH InfoPrint XT, a program that produces the Xerox print data set or file.

application exit

A user-written program that is given control during operation of a system function.

A program to which control is passed from an exit point.

In RICOH InfoPrint XT, a custom program that can modify the Xerox data before conversion, or modify the AFP generated by the data stream conversion process. RICOH InfoPrint XT also provides

an application exit that you can use to capture detailed information about the data stream conversion process.

attribute

A property, quality, or characteristic whose value contributes to the specification of an element or program function.

In InfoPrint Manager or RICOH ProcessDirector, 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.

carriage control

An optional character in an input record that specifies a write, space, or skip operation.

case-sensitive

The ability to distinguish between uppercase and lowercase letters.

character set

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.

An AFP font file that contains the raster patterns or outlines, identifiers, and descriptions of characters.

CIELAB

Internationally accepted color space model used as a standard to define color within the graphic arts industry, as well as other industries. L*, a* and b* are plotted at right angles to one another. Equal distances in the space represent approximately equal color difference. L* values represent a progression from black to white, a* values represent a progression from green to red and b* values represent a progression from blue to yellow.

code page

A resource object containing descriptive information, graphic character identifiers, and code points corresponding to a coded graphic character set. A set of assignments, each of which assigns a code point to a character. Each code page has a unique name or identifier. Within a given code page, a code point is assigned to one character. More than one character set can be assigned code points from the same code page. See also *code point*.

code point

A unique bit pattern that can serve as an element of a code page or a site in a code table, to which a character can be assigned. The element is associated with a binary value. The assignment of a character to an element of a code page determines the binary value that will be used to represent each occurrence of the character in a character string. Code points are one or more bytes long. See also *code page*.

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.

color space

The method by which a color is specified. For example, the RGB color space specifies color in terms of three intensities for red (R), green (G), and blue (B). Sometimes also referred to as color model.

command line interface (CLI)

A type of computer interface in which the input command is a string of text characters.

An interface that lets users enter commands on a command line. Contrast with *Graphical User Interface*.

common resource

In RICOH InfoPrint XT, resource files that are in these directories:**/var/pdxt/resources/common** or **/var/pdxt/resources/common/metrics**. 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

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.

All data sent through a data channel in a single read or a single write operation.

A continuous stream of data elements in transmission, or intended for transmission, in character or binary-digit form that use a defined format.

Records sent to the InfoPrint Manager or RICOH ProcessDirector 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

Any point or location, such as a program, node, station, printer, or a particular terminal, to which information is sent.

For InfoPrint Manager, see *actual destination, logical destination*.

document

A machine-readable collection of one or more objects that represent a composition, a work, or a collection of data.

In InfoPrint ManagerRICOH ProcessDirector, 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 ManagerRICOH ProcessDirector, 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 ManagerRICOH ProcessDirector or RICOH InfoPrint XT must transform the data.

Download input devices

The type of input devices that receives data sets from Download for z/OS. RICOH ProcessDirector provides several predefined Download input devices that you can use.

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 a library and that you or an application can request for a printing 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

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.

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)

In TCP/IP, the application protocol that makes it possible to transfer data to and from host computers, and to use foreign hosts indirectly.

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

A collection of characters of a given typeface and size.

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

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.

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 printers, the forms control buffer is replaced by the page definition.

FTP

File Transfer Protocol.

G

globalID

Global job identifier.

global job identifier

An unambiguous job identifier. In InfoPrint Manager, it is the name of the server that manages the job, followed by a colon, **:**, and a 10-digit, generated integer. This ID uniquely identifies the job in the InfoPrint Manager server.

graphics

Charts, pictures, illustrations, and tables created from fundamental drawing units such as lines, curves, and polygons.

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*.

H

Hot folder input devices

The directories that the system monitors. When a print job is copied or sent to a Hot folder, the system notices it and begins to process it. RICOH ProcessDirector provides several predefined Hot folder input devices that you can use

I

icon

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.

A graphical symbol displayed on a screen that a user can select to call a function or software application.

image

An electronic representation of an original document or picture produced by a scanning device or created from software.

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

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.

In InfoPrint Manager and RICOH InfoPrint XT software publications, InfoPrint Manager for AIX, InfoPrint Manager for Windows, InfoPrint Manager for Linux or any of its components.

InfoPrint Manager for AIX, InfoPrint Manager for Windows, InfoPrint Manager for Linux

The software component of InfoPrint Manager. InfoPrint XT 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.

InfoPrint Manager Network

The local area network, which runs TCP/IP protocol, and that InfoPrint Manager uses to communicate among servers, clients, and output devices.

InfoPrint Manager Scan

The component of InfoPrint Manager for Linux through which you can scan images as TIFF files for inclusion with jobs that InfoPrint Manager submits from a Windows workstation.

InfoPrint Manager Submit

The component of InfoPrint Manager for AIXInfoPrint Manager for Linux through which you can submit jobs with a job ticket from a Windows workstation or a Macintosh workstation.

input devices

The RICOH ProcessDirector objects through which RICOH ProcessDirector receives jobs. Input devices receive input files, create jobs, and submit them to the RICOH ProcessDirector system for processing.

initial value document

Synonym for *default document*.

Intelligent Printer Data Stream (IPDS)

An all-points-addressable (APA) data stream that enables users to position text, images, and graphics at any defined point on the printed page.

Information that the host sends to IPDS printers. This information generally contains basic formatting, error recovery, and character data, and enables the printers to make decisions.

An architected host-to-printer data stream that contains both 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 Class

A Job property.

Job Destination

A Job property.

Job Entry Subsystem (JES)

An IBM licensed program that receives jobs into the system and processes all output data that is produced by jobs.

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 Form

A Job property.

job ID

A local or global identifier that identifies a job to a job submitter, administrator, operator, or to InfoPrint Manager or RICOH ProcessDirector, to z/OS. See *local job identifier, global job identifier*.

Job Number attribute

Shows a unique number that identifies the job on the system. The format of the number depends on whether the job is a parent job or a job that has no child jobs, or if the job is a child job. For example, a child job contains a decimal point such as 1000023.100. RICOH ProcessDirector assigns the value of this property when the input device submits the input file for job processing. You cannot change the value.

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 or RICOH ProcessDirector, a job identifier that the server automatically generates, which maps the job to the user who submitted it. InfoPrint Manager and RICOH ProcessDirector map 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.

LPD

Line printer daemon. The type of input devices that receive jobs that are submitted using the LPD protocol.

M

medium

In InfoPrint Manager and RICOH ProcessDirector, an object representing the physical material on which the job prints.

metrics directory

The directory in which RICOH InfoPrint XT stores the metrics files for all the Xerox resources that you load. The metrics directory is one of these:

- **/var/pdxt/resources/common/metrics**
- **/var/pdxt/resources/***resgrp* **/metrics**
- */OtherDirectory*/**metrics**

message catalog

A file that contains all the possible messages that can display during the processing done by an application.

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

A font in which the spacing of the characters does not vary.

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

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.

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 runout (NPRO)

An operation that moves paper or forms through the paper path of a printer without printing.

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 runout.

O

offset stacking

For certain printer devices, a function through which the printer can offset the printed output pages for easy job separation.

orientation

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.

The angle between the top or bottom edge of the page and the baselines of text, as measured in a clockwise direction.

The rotation of an element relative to a fixed reference.

operator

In InfoPrint Manager, RICOH ProcessDirector, and RICOH InfoPrint XT, the person responsible for printer devices. Also, this person does a subset of tasks for InfoPrint Manager and RICOH ProcessDirector queues and actual destinations, and does some job-related tasks.

overlay

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.

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

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.

A collection of data that can print on a physical sheet of paper. Synonymous with *logical page*.

page definition

An AFP resource that defines the rules for transforming line data and XML data into MO:DCA-P data and text controls.

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

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.

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.

permissions

In Linux, codes that determine who can access a file or directory, and what operations they can do on the file or directory.

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 *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

In printers, text and images that are printed parallel to the shorter side of the form.

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 RICOH 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 or RICOH ProcessDirector for processing. A print job is similar to a *report*, which is the Xerox term used for the job.

Print Services Facility (PSF)

A RICOH licensed program that produces printer commands from the data sent to it.

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.

reformatted Xerox resource path

Synonymous with *metrics directory*.

Requested printer

A Job property.

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.

resource group

In RICOH InfoPrint XT, resource files that are in these directories:

/var/pdxt/resources/*resgrp*, **/var/pdxt/resources/***resgrp***/metrics /var/pdxt/resources/***resgrp***/xrxres**.

These resources are the AFP resource files, the metrics files that correspond to Xerox resources and copies of the original 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*.

RICOH ProcessDirector

A print manufacturing system architecture that lets you manage all aspects of your printing processes. Whether your printing environment is small, with a single printer, or large, with many printers, RICOH ProcessDirector can grow as your business needs grow.

Resource samples directory

The directory in which InfoPrint XT stores the jobs it generates when you sample FRMs/overlays. The resource samples directory is one of these:

- **/var/pdxt/resources/common/samples**
- **/var/pdxt/resources/***resgrp***/samples**
- */OtherDirectory/***samples**

root user

In Linux and UNIX operating systems, a user who has superuser authority and root privileges. The user identifier (UID) for the root user is 0.

In the UNIX environment, the system user with the most authority, who can log in and enter restricted commands, shut down the system, and edit or delete protected files. Synonymous with *superuser*.

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

section

A portion of a double-byte code page that consists of 256 consecutive entries. The first byte of a two-byte code point is the section identifier. A code-page section is also called a code-page ward in some environments. See also *code page* and *code point*.

section identifier

A value that identifies a section. Synonymous with *section number*.

section number

A value that identifies a section. Synonymous with *section identifier*.

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.

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.

sRGB

A standard additive color model used for color video displays, printers and the Internet. sRGB is defined in IEC (International Electrotechnical Commission) standard 61966-2-1.

standard error (STDERR)

In the UNIX operating system, 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)

In the UNIX operating system, 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)

In the UNIX operating system, 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 output 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.

subtractive primary colors

Cyan, magenta, and yellow colorants used to subtract a portion of the white light that is illuminating an object. Subtractive colors are reflective on paper and printed media. When used together with various degrees of coverage and variation, they have the ability to create billions of other colors. Contrast with *additive primary colors*.

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 *normal duplex printing*.

W

ward

A deprecated term for *section*.

working directory

In RICOH InfoPrint XT, the main directory that RICOH InfoPrint XT uses when it creates subdirectories for a specific job, or subdirectories for resources. The default working directory is **/var/pdxt**. You can change the default working directory with the **PDXTWORKDIR** environment variable.

X

Xerox resource directory

The directory in which RICOH InfoPrint XT stores copies of all the Xerox resources that you load successfully. The Xerox resource directory is one of these:

- **/var/pdxt/resources/common/xrxres**
- **/var/pdxt/resources/***resgrp* **/xrxres**
- */OtherDirectory***/xrxres**

Z

z/OS

An IBM operating system for the IBM System z 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 theIBM System z 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

Card-image format

Readable text format for downloading resources to Xerox LPS printers in which resources are organized in 80–byte records. Card-image format is used only for CMD, FSL, ISL, JSL, MSC, PCH and TMP resources.

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) resource that 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

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. RICOH 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 that transforms graphics files to Xerox compressed raster image format for printing on an LPS printer equipped with the graphics handling option (GHO).

EPIC

Electronic Printer Image Construction.

F

FDL

Forms Description Language.

FNT

The file type, or extension, of a Xerox font file. RICOH 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. RICOH 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. RICOH InfoPrint XT does not use FSLs during data-stream conversion.

FRM

The file type, or extension, of a Xerox forms file. RICOH 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 z/OS-based software product that customers use to create electronic forms for Xerox LPS printers. Related software for creating FRMs is available on various Xerox LPS printers as the FDL task.

I

ICT

Ink Catalog.

IDR

Ink Description Entry.

Ink Catalog (ICT)

The object file which contains descriptions of Xerox highlight color palettes and inks.

Ink Descriptor Entry (IDR)

A Xerox LPS printer file that specifies default highlight color ink catalogs, palettes and inks.

Ink Source Library (ISL)

A Xerox LPS printer source file that contains statements which define highlight color palettes and inks.

IMG

The file type, or extension, of a Xerox image file. RICOH 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.

ISL

Ink Source Library.

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

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.

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, etc). To run Xerox print jobs, the JSL must first be translated to an object form (compiled) JDL by the printer control unit. RICOH 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. RICOH 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). RICOH 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.

LPS-labeled tape format

Binary format for downloading resources to Xerox LPS printers in which the first record of each resource is a 128–byte label. The resource that follows the label is organized in 512–byte blocks.

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 functions as the native language of the Xerox LPS printer.

N

non-printable resource

In RICOH InfoPrint XT, a Xerox print environment control file (CMD, CME, JDL, LIB, PDE, STK, or TST) from which RICOH 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 RICOH InfoPrint XT, a Xerox FNT, FRM, IMG, or LGO file from which RICOH InfoPrint XT creates both a metrics file, and one or more AFP resource files when you load the resource.

R

report

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 Escape Sequence (XES) data stream

A data stream format supported by certain Xerox distributed mode printers. The escape sequence is a print control character or "key" which is user-defined for each print job. Synonymous with UDK (User Defined Key).

Xerox Integrated Composition System (XICS)

A software product for composing text documents 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 RICOH 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 RICOH Web site:

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http://www.ricoh-usa.com
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RICOH InfoPrint XT

- *InfoPrint XT for AIX, G550-1339*
- *InfoPrint XT for Windows, G550-1340*
- *InfoPrint XT for Linux, G550-20375*
- Software Support Handbook

Advanced Function Presentation

- *Advanced Function Presentation: Programming Guide and Line Data Reference , S544-3884*

- *Data Stream and Object Architectures: Bar Code Object Content Architecture Reference , S544-3766*
- *Data Stream and Object Architectures: Font Object Content Architecture (FOCA) Reference , S544-3285*
- *Data Stream and Object Architectures: Graphics Object Content Architecture for Advanced Function Presentation Reference , S544-5498*
- *Data Stream and Object Architectures: Image Object Content Architecture Reference , SC31-6805*
- *Data Stream and Object Architectures: Intelligent Printer Data Stream Reference , S544-3417*
- *Data Stream and Object Architectures: Mixed Object Document Content Architecture Reference , SC31-6802*
- *Data Stream and Object Architectures: Presentation Text Object Content Architecture Reference , SC31-6803*

InfoPrint Manager for Linux

- *InfoPrint Manager: Reference, S550-1052*
- *InfoPrint Manager for Linux: Planning Guide, G550-20262*
- *InfoPrint Manager for Linux: Getting Started, G550-20263*
- *InfoPrint Manager for Linux: Procedures, G550-20264*

Note

Your InfoPrint Manager installation media includes a CD-ROM that contains all the InfoPrint Manager publications.

RICOH ProcessDirector

- *RICOH ProcessDirector for Linux: Planning and Installation, G550-1042*
- *RICOH ProcessDirector: Integrating with Other Applications, S550-1069*
- *RICOH ProcessDirector: Installing and Configuring the Manufacturing Optimization Feature, G550-1070*

Note

Your RICOH ProcessDirector for Linux installation media includes a CD-ROM that contains all the RICOH ProcessDirector publications.

Print Services Facility for z/OS

- *Print Services Facility for z/OS: Download for z/OS, G550-0429*

RICOH printers

See the RICOH web site at http://rpp.ricoh-usa.com.

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