

# PDL Reference Guide for the Xerox WorkCentre 57xx Series Customer Tip



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## Accessing Extended Features

### Overview

This document describes how to access the extended features of the WorkCentre 57xx Series in environments for which Xerox does not make a custom driver.

**Note:** Some of the commands and syntax used in this document requires familiarity with either PostScript (PS) or Printer Command Language (PCL).

This document provides the Printer Description Language (PDL) commands and syntax for each feature. The following tables are also included:

- features supported by the WorkCentre 57xx Series
- commands to use in a PCL print job
- commands to use in a PS print job

This document is not intended as a PS or PCL reference manual, but a guide for using the extended features in PS, PCL or ASCII print jobs.

### Using this Guide

1. Refer to the Feature List for the feature you wish to implement. Select the page number to jump to that page.
2. Follow the syntax listed for the command you selected. Read the “Dependencies/Caveats” section. You can access features using several methods:
  - PCL or PS commands
  - PJI SET commands
  - Xerox specific COMMENT command.

### Feature Listing

PCL and ASCII print jobs can use PJI commands or PCL commands to access the attributes of the device. If there is more than one method listed to access a specific feature, determine the best method for your application and use that method.

PostScript print jobs can use Document Structuring Commands (DSC) or PS commands. If there is more than one method listed to access a specific feature, determine the best method for your application and use that method.

For this document, both PJI COMMENT and DSC are referred to as Comment commands.

## Getting Started

PCL and ASCII print jobs can use PJJ commands or PCL commands to access the attributes of the device. If there is more than one method listed to access a specific feature, determine the best method for your application and use that method.

### Comment Commands

To process all PJJ COMMENT commands and DSC, enclose them with XRxBegin and XRXEnd commands. The following example shows a PCL or ASCII print job:

```
@PJJ COMMENT XRxBegin
@PJJ COMMENT OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE ;
@PJJ COMMENT XRXEnd
```

This example shows a PS print job:

```
%%XRxBegin
%%OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE ;
%%XRXEnd
```

- The first parameter of the command is an attribute followed by a value.
- Comment commands must end with a semicolon except for the XRxBegin and XRXEnd commands.
- A comment command not enclosed by XRxBegin and XRXEnd is NOT a Xerox specific command and is treated as a real comment with no functional attachment to its contents.
- The comment commands are specific to the WorkCentre 57xx Series.

### PJJ SET Commands

PJJ SET commands are available for some features. If you choose to use these commands, do not enclose them with the XRxBegin and XRXEnd commands.

PJJ SET commands do not require a semicolon at the end of the command line.

### PCL Commands

PCL commands are available for some features. If you choose to use these commands do not enclose them with the XRxBegin and XRXEnd commands. Refer to a PCL reference manual for more specific information regarding PCL commands.

### PS Commands

PS commands are for some features. If you choose to use these commands, do not enclose them with the XRxBegin and XRXEnd commands. Refer to a PS reference manual for more specific information regarding PS commands.

# Table of Contents

Accessing Extended Features.....	1
Overview .....	1
Using this Guide.....	1
Feature Listing .....	1
Getting Started.....	2
Comment Commands.....	2
PJL SET Commands .....	2
PCL Commands.....	2
PS Commands.....	2
Table of Contents .....	3
XRXBegin .....	4
XRXEnd .....	4
General Comment Commands.....	4
JOB NAME .....	4
JOB OWNER .....	4
COPIES.....	5
JOB TYPE .....	5
DELAY PRINT .....	5
FAX SEND .....	6
BANNER SHEET (START SHEET).....	7
Media Comment Commands.....	7
MEDIA SOURCE .....	7
MEDIA SIZE .....	8
MEDIA TYPE .....	9
MEDIA COLOR.....	9
Formatting Comment Commands.....	9
COLLATION .....	9
FEED EDGE .....	10
SIMPLEX / DUPLEX PRINTING .....	10
Finishing Comment Commands.....	10
OFFSET .....	10
OUTPUT DESTINATION.....	11
STAPLE .....	11
HOLE PUNCH .....	11
BOOKLET FOLD and STAPLE .....	12
BOOKLET FOLD TYPE.....	12
Image Quality.....	13
RESOLUTION.....	13
TONER SAVER .....	13
Print Job Accounting.....	13
NETWORK ACCOUNTING.....	13
INTERNAL AUDITRON .....	14
INTERLEAVE .....	14
INTERLEAVE MEDIA COLOR.....	14
PJL/PCL Dependencies/Caveats.....	15
DSC/PS Dependencies/Caveats .....	15
Examples.....	16
Supported PostScript Fonts .....	20
Supported PCL5 Fonts .....	21
Additional Information.....	22

<b>XRXBegin</b>	
When the interpreter receives this command it begins to parse PJI COMMENT commands to check for Xerox-specific commands until it receives the command to stop parsing.	
<b>PJI COMMENT Command</b>	<b>DSC Comment Command</b>
@PJI COMMENT XRXbegin	%%XRXbegin

<b>XRXEnd</b>	
When the interpreter receives this command it stops parsing PJI COMMENT commands.	
<b>PJI COMMENT Command</b>	<b>DSC Comment Command</b>
@PJI COMMENT XRXend	%%XRXend

## General Comment Commands

<b>JOB NAME</b>	
The value for Job Name is stored for printing on the banner page.	
<b>PJI COMMENT Command</b>	<b>DSC Comment Command</b>
@PJI COMMENT JOB NAME="string";	%%OID_ATT_JOB_NAME="string";
Where <i>string</i> is a maximum of 40 characters. This appears as the first item on the banner sheet.	

<b>JOB OWNER</b>	
The value for Job Owner is stored for printing on the banner page.	
<b>PJI COMMENT Command</b>	<b>DSC Comment Command</b>
@PJI COMMENT OID_ATT_JOB_OWNER "string";	%%OID_ATT_JOB_OWNER "string";
Where <i>string</i> is a maximum of 40 characters. This appears as the second item on the banner sheet.	

<b>COPIES</b>		
With COPIES specified, the device renders X number of copies of page 1 of the document, X number of copies of page 2, and so on. Use the COLLATION command in conjunction with the COPIES command to set a collate value.		
<b>PJL SET</b>	<b>PCL Cmd</b>	<b>PS Cmd</b>
@PJL SET COPIES= <i>int</i> ;	<esc>& <i>int</i> X	<</NumCopies <i>int</i> >> setpagedevice or <i>int</i> /languagelevel where {pop languagelevel}{1} ifelse 2 ge { 1 dict dup /NumCopies 4 - 1 roll put setpagedevice }{ userdict /#copies 3 -1 roll put } ifelse
Where <i>int</i> is 1 to 9999.		

<b>JOB TYPE</b>	
The Job Type command indicates a job that requires special handling.	
<b>PJL COMMENT Command</b>	<b>DSC Comment Command</b>
@PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_ <i>string</i> ;	%%OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_ <i>string</i> ;
Where <i>string</i> is one of the following:	
PRINT	Indicates a normal print job.
PROOF_PRINT	Comparable to Sample Set in a driver. This job type allows you to specify multiple copies with the @PJL SET COPIES command. One set prints for review. Then you can release or delete the job.
FAX_SEND	This job type directs a print job to use the embedded fax board and fax the job to a phone number instead of printing the job. See the FAX SEND command for the commands to provide the phone number and other fax options.

<b>DELAY PRINT</b>	
Delays printing a job until the time specified by the command.	
<b>PJL COMMENT Command</b>	<b>DSC Comment Command</b>
@PJL COMMENT OID_ATT_JOB_PRINT_AFTER “ <i>yyyymmddhhmmss</i> ”;	%%OID_ATT_JOB_PRINT_AFTER “ <i>yyyymmddhhmmss</i> ”;
Where <i>yyyy</i> =year, <i>mm</i> =month, <i>dd</i> =day, <i>hh</i> =hours, <i>mm</i> =minutes, <i>ss</i> =seconds	

<b>FAX SEND</b>	
<p>Must use with the FAX_SEND Job Type command. This command is only valid for devices that have a fax from the PC desktop function. The WC/WC Pro 2xx series fax-enabled systems support the FAX_SEND job type.</p> <p>Minimum commands required to send a simple fax job are shown in the next sections of this table. The commands that follow are optional.</p>	
<b>Required Commands</b>	
<b>PJL COMMENT Command</b>	<b>DSC Comment Command</b>
@PJL COMMENT OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE; @PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_FAX_SEND; @PJL COMMENT OID_ATT_FAX_DESTINATION_PHONE "xxxx";	%%OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE; %%OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_FAX_SEND; %%OID_ATT_FAX_DESTINATION_PHONE "xxxx";
Where <b>xxxx</b> is the phone number and any special access numbers.	
<b>Optional Commands</b>	
@PJL COMMENT OID_ATT_FAX_COVER_SHEET <i>string</i> ;  Where <b>string</b> is: TRUE FALSE	%%OID_ATT_FAX_COVER_SHEET <i>string</i> ;
@PJL COMMENT OID_ATT_FAX_CONFIRMATION_SHEET <b>string</b> ;  Where <b>string</b> is: TRUE FALSE	%%OID_ATT_FAX_CONFIRMATION_SHEET <b>string</b> ;
@PJL COMMENT OID_ATT_FAX_RESOLUTION <i>int</i> ;  Where <b>int</b> is: 0 – Fine Resolution 1 – Standard Resolution 2 – Super Fine Resolution	%%OID_ATT_FAX_RESOLUTION <i>int</i> ;
@PJL COMMENT OID_ATT_FAX_TYPE OID_VAL_FAX_TYPE_ <b>string</b> ;  Where <b>string</b> is: G3_AUTO Super G3 (33.6kbps) G3_14400 G3 (14.4kbps) G3_FORCED_4800 Forced 4800 bps)	%%OID_ATT_FAX_TYPE OID_VAL_FAX_TYPE_ <b>string</b> ;
@PJL COMMENT OID_ATT_CREDIT_CARD "xxxx"; Where <b>xxxx</b> is the credit card or charge code required to send the fax. Select this option and enter the credit card number (up to 16 digits) if you want to charge the fax call to a credit card. The credit card number is concealed on confirmation reports.	
Characters for phone numbers, prefix numbers, credit cards, and other numeric entries. = Wait for dial tone. ! Used to designate a mailbox signal. , Used to initiate a pause period; default pause period is 3 seconds. / Used to delineate private data. \$ Signifies to wait for a confirmation dial tone. <1> Use preceding a fax number to specify which fax line should be used on systems that support dual fax lines. <2> Use preceding a fax number to specify which fax line should be used on systems that support dual fax lines.	

<b>BANNER SHEET (START SHEET)</b>	
This command turns on/off the banner sheet that prints at the beginning of every job. It only applies to the job that contains the command; it does not affect any other jobs. If the device is configured to disable banner sheets, this command is ignored.	
<b>PJL COMMENT Command</b>	<b>DSC Command</b>
@PJL COMMENT OID_ATT_START_SHEET OID_VAL_JOB_SHEET_ " <b>string</b> ";	%%OID_ATT_START_SHEET OID_VAL_JOB_SHEET_ " <b>string</b> ";
Where <b>string</b> is:	
NONE	Do not create a banner sheet for this job.
FULL	Create a banner sheet for this job. By default, if the START SHEET comment is not included a banner sheet is generated unless the device has banner sheet disabled.
USER	A custom start sheet is included in this job.

## Media Comment Commands

<b>MEDIA SOURCE</b>			
This command specifies the tray to supply the job's media. These are PCL commands rather than PJL commands. Insert this command within the PCL portion of the print job.			
<b>PCL Cmd</b>	<b>PS Cmd</b>		
<esc> &1 <i>int</i> H	<</MediaPosition <i>int</i> >> setpagedevice		
Where <i>int</i> is one of the following:			
	<b>PCL5 <i>int</i></b>	<b>PCL6 <i>int</i></b>	<b>PS <i>int</i></b>
Auto Select	0	1	0
Tray 1	1	4	1
Tray 2	4	5	2
Tray 3	23	7	3
Tray 4	24	8	4
Tray 5	5	9	6
Bypass Tray	2	2	5
<b>NOTE:</b> When sending a job with a tray selection, issue a MEDIA COLOUR "Unspecified" and MEDIA TYPE "Unspecified" PJL COMMENT in the PDL.			

<b>MEDIA SIZE</b>							
This command specifies the size of media on which to print the job. These are PCL commands rather than PJI commands. Insert a media size command within the PCL portion of the print job.							
<b>PCL Cmd</b>				<b>PS Cmd</b>			
<esc> &l <i>int</i> A				<</PageSize [ <i>width height</i> ]/ImagingBBox null>> setpagedevice Note: /ImagingBBox null is optional			
Where <i>int</i> is one of the following:							
<b>Media Sizes</b>	<b>PCL5 <i>int</i></b>	<b>PCL6 <i>int</i></b>	<b>PS (w h) Points</b>	<b>Media Sizes</b>	<b>PCL5 <i>int</i></b>	<b>PCL6 <i>int</i></b>	<b>PS (w h) Points</b>
Letter 8.5 x 11" (216 x 279 mm)	2	0	612 X 792	9 x 11" (229 x 279)	201	201	648 x 792
Legal 8.5 x 14" (216 x 356 mm)	3	1	612 X 1008	A4 (210 x 297 mm)	26	2	595 X 842
Tabloid (Ledger) 11 x 17" (279 x 432 mm)	6	4	792 X 1224	A3 (297 x 420 mm)	27	5	842 X 1191
Postcard (4.5 x 6") (114 x 152 mm)	211	13	324 x 432	A5 (148 x 210 mm)	25	15	420 X 595
5 x 7" (127 x 178 mm)	204	204	360 x 504	A6 (105 x 148 mm)	203	17	297 x 420
Invoice (Statement) 5.5 x 8.5" (216 x 140 mm)	41	41	396 x 612	JIS B4 (257 x 364 mm)	46	10	729 x 1032
Executive 7.25 x 10.5" (184 x 267 mm)	1	3	522 x 756	JIS B5 (182 x 257 mm)	45	11	516 x 729
8 x 10" (203 x 254 mm)	208	208	576 x 720	JIS B6 (128 x 182 mm)	205	18	363 x 516
8.5 x 13 inches (215 x 330 mm)	44	212	612 x 936	Oversized A4 (223 x 297 mm)	200	200	632 x 842
<b>Envelope Sizes</b>	<b>PCL5 <i>Int</i></b>	<b>PCL6 <i>int</i></b>	<b>PS (W H) Points</b>	<b>Envelope Sizes</b>	<b>PCL5 <i>Int</i></b>	<b>PCL6 <i>int</i></b>	<b>PS (W H) Points</b>
C5 (162 x 229 mm)	91	8	459 x 649	No.10 4.125 x 9.5" (105 x 241 mm)	81	6	297 x 684
Monarch 3.875 x 7.5" (98 x 191 mm)	80	7	279 x 540	DL (110 x 220 mm)	90	9	312 x 624
No. 9 3.875 x 8.875" (98 x 225 mm)	221	221	279 x 639	5.5 x 7"	220	220	396 x 504

**NOTE:** When sending a job with a media size, there must be a MEDIA COLOUR "Unspecified" and MEDIA TYPE "Unspecified" PJI COMMENT command issued in the PDL.



<b>MEDIA TYPE</b>			
Media types are used to distinguish the type of media a job requires. If using the Media Source command, set the Media Type command to Unspecified.			
<b>PJL COMMENT Command</b>		<b>DSC Comment Command</b>	
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE " <b>String</b> ";		%% OID_ATT_DEFAULT_MEDIUM_TYPE " <b>String</b> ";	
Where <b>string</b> is one of the following:			
<b>Driver Nomenclature</b>	<b>String</b>	<b>Driver Nomenclature</b>	<b>String</b>
Plain	<i>Standard</i>	Labels	<i>Labels</i>
Punched	<i>Drilled</i>	Pre-Printed	<i>Preprinted</i>
Transparency	<i>Transparency</i>	Envelope	<i>Envelopes</i>
Letterhead	<i>Letterhead</i>	Custom1 (etc for 2-7)	<i>Custom1-7</i>
Pre-cut Tab *	<i>PrecutTabs</i>	Other	<i>Other</i>
Heavyweight	<i>CardStock</i>	Rough Surface	<i>Rough</i>
Recycled	<i>Recycled</i>	Printer Default Type	<i>System-Default</i>
Bond	<i>Bond</i>	Automatically Select	<i>Unspecified</i>

<b>MEDIA COLOR</b>	
Use this command to indicate the color of the media used to print a job. The strings are case sensitive with the first letter capitalized and the rest lower-case. When using a Media Source command, issue a Media Type command set to Unspecified.	
<b>PJL COMMENT Command</b>	<b>PS Set Page</b>
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_COLOUR " <b>string</b> ";	<</MediaColor (string)>> setpagedevice
Where <b>string</b> is one of the following: White, Yellow, Green, Buff, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Unspecified, Blue, Other, Custom1, Custom2, Custom3, Custom4, Custom5, Custom6, Custom7	

## Formatting Comment Commands

<b>COLLATION</b>	
This attribute controls the collation status of the output. COLLATE results in sets of pages, for example two copies of a 3-page job results in pages 1 through 3 printed, then pages 1 through 3 printed again. NO_PAGE COLLATE results in page 1 printing twice, page 2 printing twice and page 3 printing twice.	
<b>PJL COMMENT Command</b>	<b>DSC Comment Command</b>
@PJL COMMENT OID_ATT_OUTPUT <b>string</b> ;	%%OID_ATT_OUTPUT <b>string</b> ;
Where <b>string</b> is one of the following: OID_VAL_OUTPUT_PAGE_COLLATE OID_VAL_OUTPUT_NO_PAGE_COLLATE	

FEED EDGE	
The values indicate the feed edge to use.	
PJL COMMENT Command	DSC Comment Command
@PJL COMMENT OID_ATT_FEED_EDGE <b>string</b> ;	%% OID_ATT_FEED_EDGE value;
Where <b>string</b> is: OID_VAL_FEED_EDGE_SHORT_LEADING OID_VAL_FEED_EDGE_SHORT_TRAILING OID_VAL_FEED_EDGE_LONG_LEADING OID_VAL_FEED_EDGE_LONG_TRAILING	

SIMPLEX / DUPLEX PRINTING				
This command specifies if a job is to print on one side or both sides of the sheet. Choose one of the methods below for indicating this feature. Short edge bind ( <i>Duplex Tumble ON</i> ) = Duplex so that when page is rotated about the short edge, second side image is right side up. Long edge bind ( <i>Duplex Tumble OFF</i> ) = Duplex so that when page is rotated about the long edge, second side image is right side up.				
PJL COMMENT Cmd	DSC Comment Cmd	PCL Cmd		PS Cmd
@PJL COMMENT OID_ATT_PLEX OID_VAL_PLEX_ <b>string</b> ;	%%OID_ATT_PLEX OID_VAL_PLEX_ <b>string</b> ;	PCL5 <esc> &1 <b>int</b> S	PCL6 DuplexPageMode (53)	<</Duplex true /Tumble <b>string</b> >> setpagedevice
Where <b>string</b> is: SIMPLEX = simplex DUPLEX = duplex		Where <b>int</b> is: 0 = Simplex 1 = Duplex Long Edge Binding 2 = Duplex Short Edge Binding		Where <b>string</b> is: true false

## Finishing Comment Commands

OFFSET	
This feature provides a physical offset of hard copy that distinguishes between sets or stacks within a job.	
PJL SET Cmd	PS Cmd
@PJL SET JOBOFFSET= <b>string</b>	<</Jog <b>int</b> >> setpagedevice
Where <b>string</b> is: ON OFF	Where <b>int</b> is: 0 = no offset 3 = offset each set

<b>OUTPUT DESTINATION</b>
Indicates the output location where the print job is sent.
<b>PJL COMMENT Command</b>
@PJL COMMENT OID_ATT_OUTPUT_BINS OID_VAL_OUTPUT_BIN_ <i>string</i> ;
Where <i>string</i> is: MIDDLE - For Offset Catch Tray TOP - For Top Output Tray of Finisher STACKER - Finisher Stacker Tray

<b>STAPLE</b>			
This command indicates use and location of staple(s).			
<b>PJL COMMENT Command</b>	<b>DSC Comment Command</b>	<b>PS SET Page</b>	<b>PS Cmd</b>
@PJL COMMENT XRXSTAPLE= <i>string</i> ;	OID_ATT_FINISHIN G <i>value</i>	@PJL SET STAPLEOPTION= <i>string</i>	<</Staple <i>int</i> >> setpagedevice /StapleDetails<</Type 1 /StapleLocation(" <i>string</i> ")>>
Where <i>string</i> is: PORTRAIT LANDSCAPE DUAL	Where value is: STAPLE NONE	Where <i>string</i> is: NONE ONE TWO	Where <i>int</i> is: 0 = No Staple 3 = Staple at end of set  Where <i>string</i> is: SinglePortrait SingleLandscape Dual Landscape Multiple
The following PJL Comment Command indicates the use of 4 staples to the trailing edge:			
@PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE_MULTIPLE;			

<b>HOLE PUNCH</b>		
This command indicates hole punches for a print job on a device with hole punch capability.		
<b>PJL COMMENT Cmd</b>	<b>DSC Comment Cmd</b>	<b>PS Cmd</b>
@PJL COMMENT OID_ATT_PUNCH <i>int</i> ;	%%OID_ATT_PUNCH <i>int</i> ;	<</Punch <i>int1</i> /PunchDetails <</Type 6 /NumHoles <i>int2</i> >>>> setpagedevice
Where <i>int</i> is: 0 for No Home Punch 1 for 3 Hole Punch 2 for 2 Hole Punch 4 for 4 Hole Punch		Where <i>int1</i> is: 0 for No Punch 4 for Punch  Where <i>int2</i> is: 0 for No Punch 2 for 2 Hole Punch 3 for 3 Hole Punch 4 for 4 Hole Punch

<b>BOOKLET FOLD and STAPLE</b>		
<p>This command indicates to fold and staple or not stapling the print job if the Professional Finisher is installed.</p> <p><b>Note:</b> Booklet Fold, Unstapled or Stapled also requires a LeadingEdge 2 or OID_VAL_FEED_EDGE_SHORT_TRAILING command to insure SEF feeding.</p>		
<b>PS Set Page</b>	<b>PJL COMMENT Cmd</b>	<b>DSC Comment Cmd</b>
<pre>&lt;&lt;/Booklet <i>boolean</i>&gt;&gt; setpagedevice  boolean; = true or false &lt;&lt;/BookletDetails &lt;&lt; /Type 2 /Staples int &gt;&gt; &gt;&gt; setpagedevice  where int is one of the following: 0 = Do not staple 2 = 2 Staples  /LeadingEdge 2</pre>	<pre>@ PJL COMMENT OID_ATT_BOOKLET value;  Enumerations for "value" OID_VAL_BOOKLET_STAPLE OID_VAL_BOOKLET_NOSTAPLE  @PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_BOOKLET  @ PJL COMMENT OID_ATT_FEED_EDGE OID_VAL_FEED_EDGE_SHORT_ TRAILING</pre>	<pre>%% OID_ATT_BOOKLET value;  Enumerations for "value" OID_VAL_BOOKLET_STAPLE OID_VAL_BOOKLET_NOSTAPLE  %%OID_ATT_FINISHING "value"  Enumerations for "value" OID_VAL_FINISHING_BOOKLET  %%OID_ATT_FEED_EDGE "value"  Enumerations for "value" OID_VAL_FEED_EDGE_SHORT_TRAILIN G</pre>

<b>BOOKLET FOLD TYPE</b>		
<p>This command indicates an optional fold type generated by the professional finisher. The short edge feed command is also required to use the booklet fold command.</p>		
<b>PS Set Page</b>	<b>PJL COMMENT Cmd</b>	<b>DSC Comment Cmd</b>
<pre>/LeadingEdge <i>integer</i> or null  null = use default orientation for specified PageSize to select which edge is the top of the page. 0 = Short edge, leading edge is the top of the page. 2 = Short edge, trailing edge is the top of the page.</pre>	<pre>@ PJL COMMENT OID_ATT_FEED_EDGE value;  Enumerations for "value"; OID_VAL_FEED_EDGE_SHORT_ LEADING Short edge, leading edge is the top of the page.  OID_VAL_FEED_EDGE_SHORT_ TRAILING Short edge, trailing edge is the top of the page.</pre>	<pre>%% OID_ATT_FEED_EDGE value;  Enumerations for "value"; OID_VAL_FEED_EDGE_SHORT_LEADIN G Short edge, leading edge is the top of the page.  OID_VAL_FEED_EDGE_SHORT_TRAILIN G Short edge, trailing edge is the top of the page.</pre>

## Image Quality

RESOLUTION	
This command sets the resolution value.	
PJL COMMENT Cmd	PS Cmd
@PJL SET RESOLUTION= <i>int</i>	<</DeviceRenderingInfo << /Type 4 /ValuesPerColorComponent 2 >> >> setpagedevice <</HWResolution [ <i>int int</i> ] >> setpagedevice
Where <i>int</i> is: 600 1200 1800	Where <i>int</i> is: 600 600 1200 1200 1800 1800

TONER SAVER		
Use this command to control toner consumption when printing.		
PJL COMMENT Cmd	DSC Comment Cmd	PS Cmd
@PJL COMMENT OID_ATT_PRINT_QUALITY OID_VAL_PRINT_QUALITY _string;	%%OID_ATT_PRINT_QUALITY Y OID_VAL_PRINT_QUALITY_s tring;	<< /PostRenderingEnhance boolean (true/false) /PostRenderingEnhanceDetails << /Type 33 /DensityControl <i>int1</i> /TonerSaver <i>int2</i> >> >> setpagedevice
Where <i>string</i> is: NORMAL DRAFT		Where <i>int1</i> is: -3 – light -2 -1 0 +1 +2 +3 – Dark Where <i>int2</i> is: 0 = Normal 1 = Toner Saver <b>Note:</b> It is necessary to send DensityControl and TonerSaver in the same command.

## Print Job Accounting

NETWORK ACCOUNTING	
This accounting command sends User ID and Account ID data with a job for job-based accounting purposes. User ID and Account ID are each up to 32 chars long and concatenated using I042.	
PJL COMMENT Cmd	DSC Comment Cmd
@PJL COMMENT OID_ATT_ACCOUNTING_INFORMATION_AV P"XRX_USERID,USER1"	%%OID_ATT_ACCOUNTING_INFORMATION_AV P"XRX_USERID,USER1"

INTERNAL AUDITRON	
This PJI command sends the users pin number for use by devices that support the Internal Auditor or Xerox Standard Accounting (XSA). You must provide at least a valid USERID. You may also provide a GENERAL Account number or GROUP Account number if required.	
PJI COMMENT Cmd	DSC Comment Cmd
@PJI COMMENT OID_ATT_ACCOUNTING_INFORMATION_A VP "XRX_USERID, <b>xxxx</b> "; @PJI COMMENT OID_ATT_ACCOUNTING_INFORMATION_A VP "XRX_GENERALACCT, <b>yyyy</b> "; @PJI COMMENT OID_ATT_ACCOUNTING_INFORMATION_A VP "XRX_GROUPACCT, <b>zzzz</b> ";	%%OID_ATT_ACCOUNTING_INFORMATION_AVP "XRX_USERID, <b>xxxx</b> "; %%OID_ATT_ACCOUNTING_INFORMATION_AVP "XRX_GENERALACCT, <b>yyyy</b> "; %%OID_ATT_ACCOUNTING_INFORMATION_AVP "XRX_GROUPACCT, <b>zzzz</b> ";
Where <b>xxxx</b> is a valid USER Pin number. Where <b>yyyy</b> is a valid GENERAL Account number. Where <b>zzzz</b> is a valid GROUP Account number.	

INTERLEAVE	
This command identifies the type of page to insert between sets.	
PJI COMMENT Cmd	DSC Comment Cmd
@PJI COMMENT OID_ATT_INTERLEAVE OID_VAL_INTERLEAVE_ <b>string</b> ;	%%OID_ATT_INTERLEAVE OID_VAL_INTERLEAVE_ <b>string</b> ;
Where <b>string</b> is one of the following: NONE BLANK IMAGED	

INTERLEAVE MEDIA COLOR	
This command identifies the color of the interleaved pages.	
PJI COMMENT Cmd	DSC Comment Cmd
@PJI COMMENT OID_ATT_INTERLEAVE_COLOR " <b>string</b> ";	%%OID_ATT_INTERLEAVE_COLOR " <b>string</b> ";
Where <b>string</b> is one of the following: (entries are case sensitive) White, Yellow, Green, Buff, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Unspecified, Blue, Other, Custom1, Custom2, Custom3, Custom4, Custom5, Custom6, Custom7	

## PJL/PCL Dependencies/Caveats

- Locate all PJP commands in the first 64KB of the job.
- To combine printer escape commands (not including PJP commands):
  - The first two characters after the <esc> MUST be the same.
  - All alpha characters MUST be lowercase, except the final terminating character.
  - The commands are read left to right. Combine them in the order you wish them executed.  
For example, print 5 copies (<ESC>&15X) and use letter size (<ESC>&12A) is combined as: <ESC>&15x2A
- In case of duplicate commands, the last one requested takes precedence.
- The @PJP SET COPIES takes precedence over the PCL Escape Command (<ESC> & 1 int X>) to determine number of copies. In general, a PJP command takes precedence over a PCL command.
- When printing a job with an odd number of pages and duplex front and back imaged covers, the printer always prints on both sides of the front and back covers. The remaining pages are printed on the document body media type and color with a blank page inserted to allow an image on both sides of the back cover.
- When using the Blank Front or the Blank Front & Back Cover command, the Cover Media Size command is optional. If the cover size command is not in the PDL, the printer assumes the cover media size is the same as the document body.
- Use one of the following methods to specify media selection:
  - Describe the media attributes with size, color, and type and allow the device to select the matching source tray. If the media description method is used, leave source tray selection out of the request or set to Auto. If not, the tray selection defeats the auto tray selection capabilities of the device.
  - Indicate the tray to supply media. If the source tray method is used, the system automatically defaults paper type to the defined SYSTEM DEFAULT unless specified otherwise. This prevents inadvertent use of special paper types. To override, include a paper type specification of UNSPECIFIED in the job.

## DSC/PS Dependencies/Caveats

- All %% commands (DSC comments) must be in the first 64KB of the job.
- WorkCentres supports PostScript resolutions up to and including 1800 x 1800. Some PostScript jobs may not print if the high resolution is indicated. If this occurs, print the same job at a lower resolution.
- The following media sizes do not print duplex and do not support staple commands: A6, B6, 5 x 7" Postcard (4.5 x 6"), envelopes and any custom sized media where the page width is less than 5.5". A request to duplex or staple these media sizes is ignored.
- Jobs that indicate Transparencies, Labels, Envelopes or Tab-Stock do not support duplex commands. The duplex print request is ignored when any of these media types are used.
- When printing an odd number of pages in a document with duplex front and back imaged covers, the printer always prints on both sides of the front and back covers. The remaining pages print on the document body media type and color with a blank page inserted to allow an image on both sides of the back cover.
- When using the Blank Front or the Blank Front and Back Cover command, the Cover Media Size command is optional. If the Cover Media Size command is not in the PDL, the printer assumes the cover media size as that of the document body.
- Use one of the following methods to specify media selection:
  - Describing the media attributes with size, color, and type and allowing the device to select the matching source tray. If the media description method is used, leave source tray selection out of the request or specifically set to Auto. Otherwise, the tray selection defeats the auto tray selection capabilities of the device.
  - Specifically indicate the tray to feed from. If the source tray method is used, the system automatically defaults paper type to the defined SYSTEM DEFAULT unless specified otherwise. This occurs to prevent inadvertent use of special paper types. To override, include a paper type specification of UNSPECIFIED in the job.

# Examples

## Basic PCL/PJL Template

This section illustrates a standard PCL template example that is used to access general print features. This example lists each feature and the syntax, both PCL commands and PJL, required to use these features.

Note: This section is only an example that may include features and commands that do not exist for this product.

### Note:

This print job specifies the following items:

- Job owner
- Job name
- 11 x 17 paper size
- Heavyweight
- Green paper
- 1 staple
- Sample set
- Draft mode

### Note:

The quotations in the Job Name and Job Owner lines are required.

### Section 1 (Opening Command, Required for all files)

```
<ESC>%-12345X@PJL JOB
```

### Section 2 (PJL Set Commands)

```
@PJL SET RESOLUTION=600
@PJL SET COPIES=1
@PJL SET DENSITY=4
@PJL SET JOBOFFSET=ON
```

### Section 3 (XRXbegin – Opening Comment Statement, Required)

```
@PJL COMMENT XRXbegin
```

### Section 4 (PJL Comments)

```
@PJL COMMENT OID_ATT_JOB_NAME "Readme.txt";
@PJL COMMENT OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE;
@PJL COMMENT OID_ATT_JOB_OWNER "John Smith";
@PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PRINT;
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE "Cardstock";
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_COLOUR "Green";
@PJL COMMENT OID_ATT_PRINT_QUALITY OID_VAL_PRINT_QUALITY_DRAFT;
@PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE;
@PJL COMMENT XRXSTAPLE=PORTRAIT;
"6.15.0.128.95.124.157.20.0.1.11.4";
```

### Section 5 (XRXend - Closing Statement for Comment Section, Required)

```
@PJL COMMENT XRXend
```

### Section 6 (PCL Code used to invoke PCL Language)

```
@PJL ENTER LANGUAGE=PCL
```

### Section 7 (PCL Data Stream or ASCII Document inserted here for Options such as Selecting Different Fonts, Simplex, Duplex, etc.)

[Document or Text to print inserted here]

```
_%1BINWU0PW0,0PW0,1UL1,60,40UL2,12.5,12.5,12.5,12.5,12.5,12.5,12.5,12.5UL3,
40,25,10,25UL4,35,15,10,15,10,15LT0,10,1TLA1,4,2,1SP1TR0CF2_%1A_&I1X_&I1S
_&I0H_&I0o6a4d1E_*t600R_*v1onT_*rF_*c7181x4609Y_*p162x555Y_*cT_*pxY_%1BI
P0,0,1016,1016SC0,600,0,600;_%1A_*v1O_*v1T_%0BFT10,0;_%0A_*p544x855Y_*c
2160a3200b1P_(19U_(s4099t0b0s20.00h0P_*vT_%0BFT;_%0A_*p544x883Y
```

### Section 8 (Closing Command, Required at end of Document)

```
<ESC>%-12345X
```



## Sample PCL Headers

Note: This section is only an example that may include features and commands that do not exist for this product.

### Note:

This is a simple print job header specifying the Job Owner and Job Name and one copy.

The quotations in the Job Owner and Job Name lines are required.

### Example 1 Header for Simple Print

```
<ESC>%-12345X@PJL JOB
@PJL SET COPIES= 1
@PJL COMMENT XRXbegin
@PJL COMMENT OID_ATT_JOB_OWNER "John Smith";
@PJL COMMENT OID_ATT_JOB_NAME "Print Job";
@PJL COMMENT XRXend
[Insert document or text to be printed here]
<ESC>%-12345X
```

### Note:

This is a proof print job header that requests 6 copies.

### Example 2 Header for Proof Print

```
<ESC>%-12345X@PJL JOB
@PJL SET COPIES= 6
@PJL COMMENT XRXbegin
@PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PROOF_PRINT
@PJL COMMENT XRXend
[Insert document or text to print here]
<ESC>%-12345X
```

### Note:

This is a proof print job header requesting the staple option. You must send the job to the stacker using the native PCL command.

### Example 3 Header for Finishing Options

```
<ESC>%-12345X@PJL JOB
@PJL COMMENT XRXbegin
@PJL COMMENT OID_ATT_JOB_OWNER "John Smith"
@PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PROOF_PRINT;
@PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE;
@PJL COMMENT XRXSTAPLE=PORTRAIT;
@PJL COMMENT XRXend
<ESC>\027&I2G
[Insert document or text to print here]
<ESC>%-12345X
```

## Basic PostScript/DSC Template

This section is an example of a standard PostScript template that is used to access general print features. This template lists each feature and the syntax, both Postscript commands and DSC (Document Structuring Conventions) required.

Note: This section is only an example that may include features and commands that do not exist for this product.

### Note:

The print job specifies the following items:

- Job owner
- Job name
- 11 x 17 paper size
- Drilled
- Ivory paper
- 1200 x 1200 resolution
- Staple off
- Landscape
- Sample set
- Draft mode
- Offset off
- Banner sheet off
- Duplex long edge
- One copy

The quotations in the Job Name and Job Owner lines are required.

### Section 1 (Adobe Reference Command)

```
%!PS
```

### Section 2 (XRXbegin - Opening Comment Statement, Required)

```
%% XRXbegin
```

### Section 3 (OID Commands)

```
%%OID_ATT_JOB_OWNER "John Smith";  
%%OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PRINT;  
%%OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE;  
%%OID_ATT_JOB_NAME "Readme.txt";  
%%OID_ATT_PRINT_QUALITY OID_VAL_PRINT_QUALITY_DRAFT;
```

### Section 4 (XRXend - Closing statement for Comment Section, Required)

```
%% XRXend
```

### Section 5 (Options Such as Selecting Different Fonts, Simplex, Duplex, etc.)

```
<< /PostRenderingEnhance false >> setpagedevice  
    << /Staple 0 >> setpagedevice  
    << /Jog 0 >> setpagedevice  
    << /ManualFeed false >> setpagedevice  
    << /MediaType (Drilled) >> setpagedevice  
    << /MediaColor (Ivory) >> setpagedevice  
<< /DeviceRenderingInfo << /Type 4 /ValuesPerColorComponent 2 >>  
    /HWResolution [1200 1200] >> setpagedevice  
    << /PageSize [792 1224] /ImagingBBox null >> setpagedevice  
    << /Duplex true /Tumble false >> setpagedevice  
    << /Collate false >> setpagedevice
```

### Section 6 (Postscript Data Stream Inserted Here)

```
[Postscript]
```

### Section 7 (EOF - Closing Statement for PostScript File, Required)

```
%%EOF
```

**Note:**

The header for simple print specifies the Job Owner, Job Name, and one copy.

The quotations in the Job Owner and Job Name lines are required.

### Example 1 Header for Simple Print0

```
%!PS
%%XRXbegin
%%OID_ATT_JOB_OWNER "John Smith"
%%OID_ATT_JOB_NAME "Print Job"
%%OID_ATT_COPY_COUNT 1
%%XRXend
```

**Note:**

This is a proof print job header. This job requests 6 copies.

### Example 2 Header for Proof Print

```
%!PS
%%XRXbegin
%%OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PROOF_PRINT
%%OID_ATT_COPY_COUNT 6
%%XRXend
```

**Note:**

This job header specifies the following items:

- 10 copies
- Duplex
- Collated
- Stapled
- Sent to the main tray
- Job name
- Bold image quality

Note: To use the staple and collate features, you must send the output to the stacker.

### Example 3 Header for Finishing Options

```
%!PS
%%XRXbegin
%%OID_ATT_JOB_OWNER "John Smith"
%%XRXend
<</PageSize [612 792]>>setpagedevice
<</OutputType (MainTray)>>setpagedevice
<</Staple 3>>setpagedevice
<</Duplex true /Tumble false>> setpagedevice
<</PostRenderingEnhance true>>setpagedevice
<</Collate true>>setpagedevice
<</NumCopies 10>>setpagedevice
```

# Supported PostScript Fonts

Identifying Trademark	Typeface	Identifying Trademark	Typeface
AlbertusMT		Goudy	Italic
AlbertusMT	Italic	Helvetica	
AlbertusMT	Light	Helvetica	Bold
AntiqueOlive	Bold	Helvetica	BoldOblique
AntiqueOlive	Compact	Helvetica	Condensed
AntiqueOlive	Italic	Helvetica	Condensed-Bold
AntiqueOlive	Roman	Helvetica	Condensed-BoldOblique
Apple	Chancery	Helvetica	Condensed-Oblique
ArialMT		Helvetica	Narrow
Arial	BoldItalicMT	Helvetica	Narrow-Bold
Arial	BoldMT	Helvetica	Narrow-BoldOblique
Arial	ItalicMT	Helvetica	Narrow-Oblique
AvantGarde	Book	Helvetica	Oblique
AvantGarde	Book Oblique	HoeflerText	Black
AvantGarde	Demi	HoeflerText	BlackItalic
AvantGarde	Demi Oblique	HoeflerText	Italic
Bodoni		HoeflerText	Ornaments
Bodoni	Bold	HoeflerText	Regular
Bodoni	BoldItalic	JoannaMT	
Bodoni	Italic	JoannaMT	Bold
Bodoni	Poster	JoannaMT	BoldItalic
Bodoni	PosterCompressed	JoannaMT	Italic
Bookman	Demi	LetterGothic	
Bookman	DemiItalic	LetterGothic	Bold
Bookman	Light	LetterGothic	BoldSlanted
Bookman	LightItalic	LetterGothic	Slanted
Candid		LubalinGraph	Book
Carta		LubalinGraph	BookOblique
Chicago		Lubalin Graph	Demi
Clarendon		Marigold	DemiOblique
Clarendon	Bold	MonaLisa	
Clarendon	Light	Monaco	Recut
CooperBlack		NewCenturySchlbk	
CooperBlack	Italic	NewCenturySchlbk	Book
Copperplate	ThirtyThreeBC	NewCenturySchlbk	BoldItalic
Copperplate	ThirtyTwoBC	NewCenturySchlbk	Italic
Coronet	Regular	NewCenturySchlbk	Roman
Courier		New York	
Courier	Bold	Optima	
Courier	BoldOblique	Optima	Bold
Courier	Oblique	Optima	BoldItalic
Eurostile		Optima	Italic
Eurostile	Bold	Oxford	
Eurostile	BoldExtendedTwo	Palatino	Bold
Eurostile	ExtendedTwo	Palatino	BoldItalic
Geneva		Palatino	Italic
GillSans		Palatino	Roman
GillSans	Bold	StempelGaramond	Bold
GillSans	BoldCondensed	Stempel Garamond	BoldItalic
GillSans	BoldItalic	Stempel Garamond	Italic
GillSans	Condensed	Stempel Garamond	Roman
GillSans	ExtraBold	Symbol	
GillSans	Italic	SystemBoldFont	
GillSans	Light	SystemFont	
GillSans	LightItalic	Taffy	
Goudy		Tekton	
Goudy	Bold	Times	Bold
Goudy	BoldItalic	Times	BoldItalic
Goudy	ExtraBold	Times	Italic
TimesNewRomanPS	BoldItalicMT	Times	Roman
TimesNewRomanPS	BoldMT		
TimesNewRomanPS	ItalicMT		

Identifying Trademark	Typeface
TimesNewRomanPSMT	
Univers	
Univers	Bold
Univers	BoldExt
Univers	BoldExtObl
Univers	BoldOblique
Univers	Condensed
Univers	CondensedBold
Univers	CondensedBoldOblique

Identifying Trademark	Typeface
Univers	CondensedOblique
Univers	Extended
Univers	ExtendedObl
Univers	Light
Univers	LightOblique
Univers	Oblique
WingDings	Regular
ZapfChancery	MediumItalic
ZapfDingbats	

## Supported PCL5 Fonts

Identifying Trademark	Typeface
Albertus	Medium
Albertus	Extra Bold
Antique Olive	
Antique Olive	Italic
Antique Olive	Bold
Arial	
Arial	Italic
Arial	Bold
Arial	Bold Italic
CG Omega	
CG Omega	Italic
CG Omega	Bold
CG Omega	Bold Italic
CG Times	
CG Times	Italic
CG Times	Bold
CG Times	Bold Italic
Clarendon Condensed	
Coronet	
Courier	
Courier	Italic
Courier	Bold
Courier	Bold Italic
Courier PS	
Courier PS	Oblique
Courier PS	Bold
Courier PS	Bold Oblique
Garamond	Antiqua
Garamond	Kursiv
Garamond	Halbfett
Garamond	Kursiv Halbfett
Helvetica	
Helvetica	Oblique
Helvetica	Bold
Helvetica	Bold Oblique
Helvetica	Narrow
Helvetica	Narrow Oblique
Helvetica	Narrow Bold
Helvetica	Narrow Bold Oblique
ITC Avant Garde	Black
ITC Avant Garde	Black Oblique

Identifying Trademark	Typeface
ITC Avant Garde	DemiBold
ITC Avant Garde	DemiBold Oblique
ITC Bookman	Light
ITC Bookman	Light Italic
ITC Bookman	DemiBold
ITC Bookman	DemiBold Italic
Letter Gothic	
Letter Gothic	Bold
Letter Gothic	Italic
Line Printer	
Marigold	
New Century Schoolbook	Roman
New Century Schoolbook	Italic
New Century Schoolbook	Bold
New Century Schoolbook	Bold Italic
Palatino	Roman
Palatino	Italic
Palatino	Bold
Palatino	Bold Italic
Symbol	
Symbol PS	
Times Bold	Italic
Times New Roman	
Times New Roman	Italic
Times New Roman	Bold
Times New Roman	Bold Italic
Times Roman	
Times Roman	Italic
Times Roman	Bold
Univers	Medium
Univers	Medium Italic
Univers	Bold
Univers	Bold Italic
Univers	Medium Condensed
Univers	Medium Condensed Italic
Univers	Bold Condensed
Univers	Bold Condensed Italic
Wingdings	
Zapf Chancery	Medium Italic
Zapf Dingbats	

## Additional Information

You can reach Xerox Customer Support at <http://www.xerox.com> or by calling Xerox Support in your country.

Xerox Customer Support welcomes feedback on all documentation - send feedback via e-mail to: [USA.DSSC.Doc.Feedback@xerox.com](mailto:USA.DSSC.Doc.Feedback@xerox.com).

Other Tips about Xerox multifunction devices are available at the following URL: <http://www.office.xerox.com/support/dctips/dctips.html>.

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