

# PCL

This section describes the PCL commands required to specific Document Centre features. This table lists each feature and the PCL syntax that is required to use the feature. Following this table are examples of how to use these commands and what the PCL file will look like.

Other Reference Materials: PCL 5 Printer Language Technical Reference Manual, Hewlett-Packard Manual Part Number 5961-0509

**Note:** Throughout this document, <ESC> refers to the escape key. When you see <ESC>, substitute the escape character appropriate for your environment.

## PCL Print Features

Feature Description	Implementation	Values
Job Name	@PJM COMMENT OID_ATT_JOB_NAME "string";	Where <i>string</i> is a maximum of 40 characters
Job Owner	@PJM COMMENT OID_ATT_JOB_OWNER "string";	Where <i>string</i> is a maximum of 40 characters
Media Size	[esc] & 1 int A	Where <i>int</i> one of the following: 2 = US Letter ( 8.5 x 11 inches) 3 = US Legal ( 8.5 x 14 inches) 6 = Ledger ( 11 x 17 inches ) 26 = A4 ( 210 x 297 mm) 27 = A3 ( 297 x 420 mm) 41 = 8.5 x 5.5 inches 42 = A5 ( 148 x 210 mm) 44 = 8.5 x 13 inches (215 x 330 mm) 71 = Postcard (100 x 148 mm) 80 = Monarch Envelope ( 3.875 x 7.5 inches) 81 = Com10 Envelope ( 4.125 x 9.5 inches) 90 = DL Envelope ( 110 x 220 mm) 91 = C5 Envelope ( 162 x 229 mm) 101 = Custom Paper Size (see Custom Paper Size Command on next page) 203 = A6 ( 105 x 148 mm)
Media Source	[esc] & 1 int H	Where <i>int</i> is one of the following: 0 - Auto Select 1 - Tray 1 2 - Tray 2 3 - Tray 3 4 - Tray 4 5 - High Capacity Feeder 6 - Bypass Tray
Media Type	@PJM COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE <i>value</i>	Where <i>value</i> is one of the following: standard, transparency, labels, drilled, recycled, preprinted, tabs, heavyweight, other
Media Color	@PJM COMMENT OID_ATT_DEFAULT_MEDIUM_COLOR <i>value</i>	Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other
Output Tray	[esc] & 1 int G	Where <i>int</i> is one of the following: 1 - Top Tray 2 - 11 - Mailbox Bin 1 - 10 12 - Stacker 13 - Side Tray
Stapling	@PJM COMMENT OID_ATT_FINISHING <i>value</i> ;	Where <i>value</i> is one of the following: OID_VAL_FINISHING_STAPLE OID_VAL_GENERIC_NONE
Collation	@PJM COMMENT OID_ATT_OUTPUT <i>value</i> ;	Where <i>value</i> is one of the following: OID_VAL_OUTPUT_PAGE_COLLATE OID_VAL_OUTPUT_NO_PAGE_COLLATE

Feature Description	Implementation	Values
Resolution	@PJL COMMENT SET RESOLUTION= <i>value</i> ;	Where <i>value</i> is one of the following: 400 600
Quantity	[esc] & 1 <i>int</i> X or @PJL SET COPIES = <i>int</i>	Where <i>int</i> is: 1 to 999
Simplex	[esc] & 1 <i>int</i> S	Where <i>int</i> is one of the following: 0 = Simplex
Duplex	[esc] & 1 <i>int</i> S	Where <i>int</i> is one of the following: 1 = Duplex Long Edge Binding 2 = Duplex Short Edge Binding
Orientation	[esc] & 1 <i>int</i> O	Where <i>int</i> is one of the following: 0 = Portrait 1 = Landscape
Delay Print	@PJL COMMENT OID_ATT_JOB_PRINT_AFTER " <i>string</i> ";	Where <i>string</i> has format: yyyymmddhhmmss Hours in 24 hour time and the seconds field is always "00"
Front Cover Media Type	@PJL COMMENT OID_ATT_FIRST_PAGE_MEDIA_TYPE <i>value</i> ;	Where <i>value</i> is one of the following: standard, transparency, labels, drilled, recycled, preprinted, tabs, heavyweight, other
Front Cover Media Color	@PJL COMMENT OID_ATT_FIRST_PAGE_MEDIA_COLOR <i>value</i> ;	Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other
Front Cover Imaged	@PJL COMMENT OID_ATT_FIRSTLAST_PAGE_IMAGED <i>value</i> ;	Where <i>value</i> is one of the following: TRUE FALSE
Draft Mode Printing	@PJL COMMENT OID_ATT_PRINT_QUALITY <i>value</i> ;	Where <i>value</i> is one of the following: OID_VAL_PRINT_QUALITY_NORMAL OID_VAL_PRINT_QUALITY_DRAFT
Job Type	@PJL COMMENT OID_ATT_JOB_TYPE <i>value</i> ;	Where <i>value</i> is one of the following: OID_VAL_JOB_TYPE_PRINT OID_VAL_JOB_TYPE_FAX_SEND OID_VAL_JOB_TYPE_PROOF_PRINT
Custom Paper Size	@PJL COMMENT OID_ATT_PCL_CUSTOM_DIMENSIONS (w h)	Must be used in conjunction with the PCL escape code for custom paper size, <ESC>&I101A  Where <i>w h</i> is the width and height of the page in millimeters, expressed in tenths with the condition that the value for width is less than height (portrait orientation): OID_ATT_PCL_CUSTOM_DIMENSIONS (203.2 254.0)
Banner Sheet	@PJL COMMENT OID_ATT_START_SHEET <i>value</i> ;	Where <i>value</i> is one of the following: OID_VAL_JOB_SHEET_FULL (On) OID_VAL_JOB_SHEET_NONE (Off)
Accounting (DC 420/432/440 only)	@PJL COMMENT OID_ATT_ACCOUNTING_INFORMATION "UserID 042AccountID";	Where <i>UserID</i> is the value the printer administrator has assigned to a user. Where <i>AccountID</i> is the printer administrator has assigned to the account.
Interleave	@PJL COMMENT OID_ATT_INTERLEAVE <i>value</i> ;	Where <i>value</i> is one of the following: OID_VAL_INTERLEAVE_NONE OID_VAL_INTERLEAVE_BLANK OID_VAL_INTERLEAVE_IMAGED
Interleave Media Color	@PJL COMMENT OID_ATT_INTERLEAVE_COLOR <i>value</i> ;	Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other

## PCL LAN Fax Features

Feature Description	Implementation	Values
Job Name	@PJL COMMENT OID_ATT_JOB_NAME "string";	Where <i>string</i> is a maximum of 40 characters
Job Owner	@PJL COMMENT OID_ATT_JOB_OWNER "string";	Where <i>string</i> is a maximum of 40 characters
Confirmation Sheet	@PJL COMMENT OID_ATT_FAX_CONFIRMATION_SHEET <i>value</i> ;	Where <i>value</i> is one of the following: TRUE FALSE
Cover Sheet	@PJL COMMENT OID_ATT_FAX_COVER_SHEET <i>value</i> ;	Where <i>value</i> is one of the following: TRUE FALSE
Destination phone number	@PJL COMMENT OID_ATT_FAX_DESTINATION_PHONE "string";	Where <i>string</i> is a maximum of 120 characters.
Credit Card	@PJL COMMENT OID_ATT_CREDIT_CARD "string";	Where <i>string</i> is 16 numeric characters.
Delay Send	@PJL COMMENT OID_ATT_JOB_FAX_AFTER "string";	Where <i>string</i> has format: yyymmddhhmmss Hours in 24 hour time and the seconds field is always "00"
Resolution	@PJL COMMENT SET RESOLUTION= <i>value</i> ;	Print resolution <u>must</u> be specified. Where <i>value</i> must be 400 for LAN fax jobs
Fax type	@PJL COMMENT OID_ATT_FAX_TYPE "string";	Where <i>string</i> is one of the following: OID_VAL_FAX_TYPE_G3_AUTO OID_VAL_FAX_TYPE_G3_FORCED_4800
Fax Resolution	@PJL COMMENT OID_ATT_FAX_RESOLUTION <i>int</i>	Where <i>int</i> is one of the following: 0 = standard (100 x 200) 1 = fine (200 x 200) 2 = superfine (400 x 400)

## Sample PCL Headers

**Note:** This is a simple Print Job specifying the Job Owner and Job Name and 10 copies. Note that the quotations in the Job Owner and Job Name lines must be present.

### Example 1 - Simple Print job

```
<ESC>%-12345X
@PJL COMMENT XRXbegin
@PJL COMMENT OID_ATT_JOB_OWNER "JohnSmith";
@PJL COMMENT OID_ATT_JOB_NAME "Print Job";
@PJL COMMENT XRXend
@PJL COMMENT SET COPIES 10
```

**Note:** This is a Group 3 Fax Job being sent to two recipients. It also requests that a confirmation sheet be printed.

### Example 2 - Fax Job with Multiple Recipients

```
<ESC>%-12345X
@PJL SET RESOLUTION=400
@PJL COMMENT XRXbegin
@PJL COMMENT OID_ATT_FAX_CONFIRMATION TRUE;
@PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_FAX_SEND;
@PJL COMMENT OID_ATT_FAX_TYPE OID_VAL_FAX_TYPE_G3_AUTO;
@PJL COMMENT OID_ATT_FAX_DESTINATION_PHONE "5551234";
@PJL COMMENT OID_ATT_FAX_DESTINATION_PHONE "4441111";
@PJL COMMENT XRXend
```

**Note:** This is a Sample Set or Proof Print Job. This job will print without a banner sheet. One copy will print on standard, white, 8 ½ x 11 paper duplexed for short edge binding. Five copies will print upon release of the job.

### Example 3 - Proof Print

```
<ESC>%-12345X
@PJL COMMENT XRXbegin
@PJL COMMENT OID_ATT_JOB_NAME "ProofPrint";
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE "standard";
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_COLOR "white";
@PJL COMMENT OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE
@PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE;
@PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PROOF_PRINT;
@PJL COMMENT XRXend
@PJL COMMENT SET COPIES 6
<ESC>&l2A
```

## PCL Feature Dependencies/Caveats

- Combining Printer Commands :
  - The first two characters after the <ESC> MUST be the same, in order to combine them.
  - All alphanumeric characters MUST be lowercase, except the final terminating character.
  - The commands are read left to right and MUST be combined in the order you wish them to be executed in.
- In case of duplicate commands, the last one requested takes precedence.
- The @PJL SET COPIES takes precedence over the PCL Escape Command (<ESC>& t int X>) to set copies.
- With the exception of Quantity and Resolution, all @PJL commands occur within the XRXbegin and XRXend parameters.
- When using the Staple feature, the output tray defaults to the stacker.
- Valid media sizes for stapling include US Letter, US Ledger, A4, and A3. Letter and A4 must be Long Edge Feed.
- Any job with media smaller than A6 (5.8 in. x 8.3 in. or 105 mm x 148 mm), including envelopes, should not be duplexed.
- Any job with media smaller than A6, including envelopes, should print to the Top Tray.
- Any job with Transparencies or Labels should not be duplexed.

## LAN Fax

- The job type command must be set to fax send for PCL jobs. See Example 2 on page 12. Depending on the job, the <ESC>E command may be needed before the text.
- A LAN fax job must specify 400 dpi **print resolution**, regardless of the fax resolution specified.
- Valid paper sizes for LAN fax jobs include US Letter, US Legal, US Ledger, A4, and A3.
- The Destination Phone Number should be the last set of comments before the XRXend comment.
- LAN fax cover pages are generated via the print drivers, therefore if a cover sheet is desired, it must be the first page of the document.
- Even though there is no specific Group Fax command, you can accomplish the same effect by repeating the Fax Destination command to as many recipients as you wish.
- There is a 120 character limit for the all of the combined Fax Destination Phone Number fields. This includes multiple recipients. If you need to send a fax to 20 people and the sum all of your Fax Destination Phone Number fields is larger than 120 characters, you MUST separate the job into multiple jobs such that these limits are met.