

Customer Tips

dc02cc0280
October 7, 2003

... for the user

PDL Reference Guide for the DC 340/332/230/220 and DC 440/432/425/420 ST/LP

Accessing Document Centre Extended Features

This document provides printer description language (PDL) information that enables you to access the extended features of the Document Centre in environments that do not have a custom driver. These environments include various UNIX platforms (including Solaris 2.x), custom DOS packages, and other platforms including mainframes and minis.

NOTE: The use of the commands and syntax in this document requires some familiarity with either PostScript (PS) or Printer Command Language (PCL).

This guide includes:

- A table that describes features supported by the Document Centre platform
- A PostScript table that lists PostScript features the Document Centre supports and the syntax to enable the features
- A Printer Command Language (PCL) table that lists PCL features the Document Centre supports and the syntax required to enable the features

This document is not intended to be a complete PS or PCL reference manual, but rather a guide for using the PS and PCL syntax with the Document Centre.

This document applies to these Xerox products:

	WC Pro 32/40 Color
	WC Pro 65/75/90
	WC Pro 35/45/55
	WC M35/M45/M55
	DC 555/545/535
	DC 490/480/470/460
x	DC 440/432/425/420
x	DC 340/332
	DC 265/255/240
x	DC 230/220
	DCCS 50

Using this Guide

1. Search the Feature Table to determine if the Document Centre supports the feature you wish to use.
2. Verify your Document Centre supports the feature. For example, the Document Centre must have the LAN Fax option installed to use faxing commands.
3. Locate the table for the PDL you are using. Find the feature in the table and follow across to see how to implement it and the value parameters. Examples are provided. The Dependencies/Caveats section contains points for you to keep in mind.

Print Features

This table describes a list of features supported by PostScript Level 2 and 3 commands and/or PCL5e and 6 escape sequences. The table includes both generic print features and some custom Document Centre features.

NOTE: You can only access the N-up and Booklet mode print features by using the print drivers. There is no PJI command for these features because the device controller does not support them.

Feature	Description
Job Name	Allows you to specify a Job Name.
Job Owner	Allows you to specify a Job Owner.
Media Size	Allows you to select media size.
Media Source	Allows you to select the printer paper tray that feeds the job.
Media Type	Allows you to select type of media type used to print the job.
Media Color	Allows you to select media color used to print the job.
Output Tray	Allows you to select output location where the job is delivered.
Stapling	Allows you to select stapling.
Collation	Allows you to select the order of the output. Collated indicates that a "set" is composed of 1 copy of each page. Uncollated indicates that each "stack" is composed of copies of the same page.
Resolution	Allows you to specify the resolution to use when the job is imaged. Currently, 400 x 400 dpi or 600 x 600 dpi is available.
Quantity	Allows you to select the number of sets to print.
Simplex	Delivers one-sided output.
Duplex Long Edge Binding	Delivers two-sided output. Landscape documents read like a calendar, and Portrait documents read like a book.
Duplex Short Edge Binding	Delivers two-sided output. Landscape documents read like a book and Portrait documents read like a calendar.
Orientation	Allows you to select Portrait or Landscape orientation.
Delay Print	Allows you to select a time for a job to print.
Front Cover Media Type	Allows you to select media type for the Front Cover.
Front Cover Media Color	Allows you to select media color for the Front Cover.
Draft Mode Printing	Allows you to select Draft Mode printing. This option conserves toner when printing.
Job Type	Allows you to choose from normal print, faxes, and use the Proof Print option. Proof Print is the same as Sample Set.
Accounting	Allows you to enter an accounting code and User ID to track printer usage. Note: This feature is only available on the DC 440/432/425.
Printer Banner Sheet	Allows you to turn printer banner pages on or off, on a per job basis.
Interleave	Allows you to insert blank or imaged sheets between transparencies.
Interleave Media Color	Allows you to select media color for the interleaves. Only used in conjunction with Interleave.

NOTE: This document does not address the Secure Print feature. To use this feature you need the encryption scheme that encodes the secure print password. To reveal the encryption scheme in this document could allow a user to access any Secure Print job.



Fax Features

Feature	Description
Job Name	Allows you to specify a Job Name.
Job Owner	Allows you to specify a Job Owner.
Confirmation Sheet	Allows you to generate a fax confirmation sheet.
Destination Phone Number	Allows you to specify the recipient phone number when using the fax send feature.
Credit Card	Allows you to specify a credit card number for long distance charges.
Delay Send	Allows you to specify a time to send a fax.
Fax type	Allows you to specify fax type to send. Currently, Group 3 and Group 3 Force 4800 are available.
Fax Resolution	Allows you to specify fax resolution. This feature supports Standard (100 x 200), Fine (200 x 200) and Super Fine (400 x 400). This command is dependent upon the receiving fax machine capabilities.

PostScript

This section describes the PostScript commands used to implement Document Centre features. The table lists each feature and the PostScript syntax required to enable it. Following this table are some examples that show how to use these commands and what the PostScript job header would look like.

For more information about PostScript commands, reference *PostScript Language Reference Manual*, 2nd Edition, ISBN 0-201-18127-4.

PostScript Print Features

Feature Description	Implementation	Values
Job Owner	%%OID_ATT_JOB_OWNER "string"	Where <i>string</i> is a maximum of 40 characters
Job Name	%%OID_ATT_JOB_NAME "string"	Where <i>string</i> is a maximum of 40 characters
Media Size	<</PageSize[width height]>> setpagedevice	[width height] in 1/72 inch (points) [612 792] = Letter (8 ½ x 11) [612 1008] = Legal (8 ½ x 14) [792 1224] = Ledger (11 x 17) [396 612] = 5 ½ x 8 ½ [595 842] = A4 (210 mm x 297 mm) [842 1191] = A3 (297 mm x 420 mm) [420 595] = A5 (148 mm x 210 mm) [297 420] = A6 (105 mm x 148 mm) [612 936] = (8 ½ x 13) [283 420] = Postcard (100 mm x 148 mm) Envelopes: [279 540] = Monarch (3 7/8 x 7 ½) [297 684] = Com. 10 (4 1/8 x 9½) [312 624] = DL (110 mm x 220 mm) [459 649] = C5 (162 mm x 229 mm)
Orientation	<</PageSize[height width]>> setpagedevice	[height width] in 1/72 inch (points) Reverse the page height and width to print landscape. For example: [792 612] = Letter, landscape [842 595] = A4, landscape
Media Source	<</MediaPosition int>> setpagedevice	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
Media Source for Bypass Tray	<</ManualFeed true>> setpagedevice	True = Bypass Tray
Media Type	<</MediaType (string)>> setpagedevice	Where <i>string</i> is one of the following: standard, transparency, labels, drilled, recycled, preprinted, tabs, heavyweight, other
Media Color	<</MediaColor (string)>> setpagedevice	Where <i>string</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other

Feature Description	Implementation	Values
Output Tray	<</OutputType (string)>> setpagedevice	Where <i>string</i> is one of the following: TopTray, Stacker, SideTray, Optional Outbin 2, Optional Outbin 3, Optional Outbin 4, Optional Outbin 5, Optional Outbin 6, Optional Outbin 7, Optional Outbin 8, Optional Outbin 9, Optional Outbin 10, Optional Outbin 11
Stapling	<</Staple int>> setpagedevice	Where <i>int</i> is one of the following: 0 = No Staple 3 = Staple at the end of each set
Collation	<</Collate value>> setpagedevice	Where <i>value</i> is one of the following: true (Collated) false (Uncollated)
Resolution	<</HWResolution [x y]>> setpagedevice	Where <i>x y</i> are one of the following: [400 400] or [600 600]
Quantity	<</NumCopies int>>setpagedevice	Where <i>int</i> is 1 to 999
Simplex	<</Duplex value>> setpagedevice	Where <i>value</i> is false
Duplex	<</Duplex true /Tumble value>> setpagedevice	Where <i>value</i> is one of the following: false (Duplex Long Edge Binding) true (Duplex Short Edge Binding)
Delay Print	%%OID_ATT_JOB_PRINT_AFTER "string";	Where <i>string</i> has the format: yyyymmddhhmmss Hours in 24 hour time and the seconds field is always "00"
Front Cover Media Type	%%OID_ATT_FIRST_PAGE_ MEDIA_TYPE "value";	Where <i>value</i> is one of the following: standard, transparency, labels, drilled, recycled, preprinted, tabs, heavyweight, other
Front Cover Media Color	%%OID_ATT_FIRST_PAGE_ MEDIA_COLOR "value";	Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other
Draft Mode Printing	%%OID_ATT_PRINT_ QUALITY value;	Where <i>value</i> is one of the following: OID_VAL_PRINT_QUALITY_NORMAL OID_VAL_PRINT_QUALITY_DRAFT
Job Type	%%OID_ATT_JOB_TYPE value;	Where <i>value</i> is one of the following: OID_VAL_JOB_TYPE_PRINT = Print Job OID_VAL_JOB_TYPE_FAX_SEND = LAN Fax OID_VAL_JOB_TYPE_PROOF_PRINT = Sample Print
Accounting (DC 440/432/425 only)	%%OID_ATT_ACCOUNTING_INFO RMATION "UserID 042AccountID";	Where <i>UserID</i> is the value that the printer administrator has assigned a user. Where <i>AccountID</i> is a value that the printer administrator has assigned to the account. NOTE: The UserID and the AccountID must be delimited by a 042
Printer Banner Sheet	%%OID_ATT_START_SHEET value;	Where <i>value</i> is one of the following: OID_VAL_JOB_SHEET_FULL = (On) OID_VAL_JOB_SHEET_NONE = (Off)
Interleave	%%OID_ATT_INTERLEAVE value;	Where <i>value</i> is one of the following: OID_VAL_INTERLEAVE_NONE OID_VAL_INTERLEAVE_BLANK OID_VAL_INTERLEAVE_IMAGED
Interleave Media Color	%%OID_ATT_INTERLEAVE_ COLOR "value";	Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other

PostScript LAN Fax Features

Feature Description	Implementation	Values
Job Name	%%OID_ATT_JOB_NAME "string";	Where <i>string</i> is a maximum of 40 characters
Job Owner	%%OID_ATT_JOB_OWNER "string";	Where <i>string</i> is a maximum of 40 characters
Confirmation Sheet	%%OID_ATT_FAX_CONFIRMATION_SHEET <i>value</i> ;	Where <i>value</i> is one of the following: TRUE FALSE
Destination Phone Number	%%OID_ATT_FAX_DESTINATION_PHONE "string";	Where <i>string</i> is a maximum of 120 characters. The dash (-) is used as a pause.
Credit Card	%%OID_ATT_CREDIT_CARD "string";	Where <i>string</i> is 16 numeric characters.
Delay Send	%%OID_ATT_FAX_PRINT_AFTER "string";	Where <i>string</i> has format: yyyymmddhhmmss Hours in 24 hour time and the seconds field is always "00"
Resolution	<</HWResolution [400 400]>> setpagedevice	You must specify print resolution as 400 400.
Fax Type	%%OID_ATT_FAX_TYPE <i>string</i> ;	Where <i>string</i> is one of the following: OID_VAL_FAX_TYPE_G3_AUTO OID_VAL_FAX_TYPE_G3_FORCED_4800
Fax Resolution	%%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)

Euro Character

For the **DC 440/432/425/420** all of the standard Latin fonts provided with the Adobe PostScript 3 interpreter contain the euro character (that is, all the "letter" fonts such as Helvetica and Times). Special fonts such as ZapfDingbats do not contain the euro character, but it is included in the Symbol font. Although the euro character's "glyph" has been added to the PostScript fonts, the character has not been added to the standard font encoding (that is, the character sets).

To access the euro character's glyph directly, use the glyphshow command as shown in the example below.

```

%!PS-Adobe-3.0
/Times-Roman findfont 12 scalefont setfont
120 735 moveto
(The price of this unit is: ) show /Euro glyphshow (200.00) show
showpage

```

For the **DC340/332 and DC 230/220**, a special software version is required. Version 1.12.76. EURO is the only release for these products that includes the euro character in the Adobe PostScript 2 fonts that reside on the Document Centre. After you load the correct software version on the Document Centre, you can use the glyphshow command to print the euro character.

Contact your Customer Support Center for information on obtaining this Document Centre release: SPAR Release 1_31 - ESS 1.12.76.EURO.

Examples of PostScript Job Headers

NOTE: This simple print job header specifies the Job Owner and Job Name, and a delayed print until June 21, 2005 at 4:30 p.m. The job is stapled, collated and sent to the stacker. You must include quotations in the Job Owner, Job Name and Print After lines.

Example 1 - Print Job Header that Includes Delayed Printing

```
%!PS
%%RXbegin
%%OID_ATT_JOB_OWNER "JohnSmith";
%%OID_ATT_JOB_NAME "Print Job";
%%OID_ATT_JOB_PRINT_AFTER "20050621163000";
%%RXend
<</PageSize [612 792]>>setpagedevice
<</OutputType (stacker)>>setpagedevice
<</Staple 3>>setpagedevice
```

NOTE: This is a Group 3 Fax job header that contains fax numbers for two recipients. It also contains a command to print a confirmation sheet. Headers of this type must include resolution and page size commands.

Example 2 - Fax Job Header that Includes Multiple Recipients

```
%!PS
%%RXbegin
%%OID_ATT_JOB_TYPE XRX_JOB_TYPE_FAX_SEND;
%%OID_ATT_FAX_TYPE OID_VAL_FAX_TYPE_G3_AUTO;
%%OID_ATT_FAX_CONFIRMATION_SHEET TRUE;
%%OID_ATT_FAX_DESTINATION_PHONE "5551234";
%%OID_ATT_FAX_DESTINATION_PHONE "4441111";
%%RXend
<</HWResolution [400 400]>>setpagedevice
<</PageSize [612 792]>>setpagedevice
```

NOTE: This header contains the command for a Proof Print (Sample Set). This job does not include a banner sheet. The first copy prints on standard, white, 8 ½ x 11 paper duplexed for long edge binding. Eleven duplicate copies print when the job is released at the Document Centre.

Example 3 - Print Job Header that Includes Duplex and Proof Print

```
%!PS
%%RXbegin
%%OID_ATT_START_SHEET OID_VAL_JOB_SHEET_NONE;
%%OID_ATT_JOB_TYPE XRX_JOB_TYPE_PROOF_PRINT;
%%RXend
<</PageSize [612 792]>> setpagedevice
<</MediaType (standard)>> setpagedevice
<</MediaColor (white)>> setpagedevice
<</Duplex true /Tumble false>> setpagedevice
<</NumCopies 12>> setpagedevice
```

PostScript Feature Dependencies/Caveats

- All %% commands must be in the first 4096 bytes of the job.
- In cases of duplicate commands, the last one takes precedence. Since the setpagedevice commands generally come after the %% commands, they generally take precedence.
- 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.
- Do not duplex transparency or label jobs.
- Do not duplex any job on media smaller than A6 (5.8 x 8.3 in. or 105 mm x 148 mm), including envelopes.
- Any job with media smaller than A6, including envelopes, should print to the top tray.

LAN Fax Dependencies/Caveats

- A fax must include page size, print resolution and have the Job Type set to FAX_SEND. See PostScript Example 2.
- A LAN fax job must specify 400 dpi **print resolution**, regardless of the fax resolution specified.
- A fax defaults to the highest possible resolution (such as super fine resolution – 400 dpi). You can specify a lower fax resolution.
- Valid paper sizes for LAN fax jobs include US Letter, US Legal, US Ledger, A4, and A3.
- Include the Destination Phone Number(s) as the last comment(s) before the XRXend comment.
- Print drivers generate LAN fax cover pages. If you wish to include a cover sheet in a LAN fax, include it in the faxed document as the first page.
- There is no specific Group Fax command. You can accomplish the same effect by repeating the Fax Destination command to multiple recipients.
- The combined characters in all Fax Destination Phone Number fields cannot exceed 120. Send multiple faxes to accommodate Fax Destination Phone Number characters over the 120 character limit.

PCL

This section describes the PCL commands used to implement print features. This table lists each feature and the PCL syntax required to enable the feature. Following this table are examples of how to use these commands and what the PCL job header would look like.

Other Reference Materials: *PCL 5 Printer Language Technical Reference Manual*, Hewlett-Packard Manual Part Number 5021-0377

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	@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
Media Size	<esc> & ℓ int A	Where <i>int</i> one of the following: 2 = Letter (8½ x 11) 3 = Legal (8½ x 14) 6 = Ledger (11 x 17) 41 = 8½ x 5½ 26 = A4 (210 x 297 mm) 27 = A3 (297 x 420 mm) 42 = A5 (148 x 210 mm) 203 = A6 (105 x 148 mm) 44 = 8½ x 13 (215 x 330 mm) 71 = Postcard (100 x 148 mm) 101 = Custom Paper Size (see Custom Paper Size Command on next page) Envelopes: 80 = Monarch (3 7/8 x 7½) 81 = Com10 (4.1/8 x 9½) 90 = DL Envelope (110 x 220 mm) 91 = C5 (162 x 229 mm)
Media Source	<esc> & ℓ 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	@PJL 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	@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_COLOUR <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> & ℓ int G	Where <i>int</i> is one of the following: TopTray, Stacker, SideTray, 2 = bin 1, 3 = bin 2, 4 = bin 3, 5 = bin 4, 6 = bin 5, 7 = bin 6, 8 = bin 7, 9 = bin 8, 10 = bin 9, 11 = bin 10
Stapling	@PJL 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	@PJL 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 SET RESOLUTION= <i>value</i> ;	Where <i>value</i> is one of the following: 400 600
Quantity	<esc> & ℓ <i>int</i> X or @PJL SET COPIES = <i>int</i>	Where <i>int</i> is: 1 to 999
Simplex	<esc> & ℓ <i>int</i> S	Where <i>int</i> is one of the following: 0 = Simplex
Duplex	<esc> & ℓ <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> & ℓ <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: yyymmddhhmmss 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 ID_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 = Print Job OID_VAL_JOB_TYPE_FAX_SEND = LAN Fax OID_VAL_JOB_TYPE_PROOF_PRINT = Sample Print
Custom Paper Size	@PJL COMMENT ID_ATT_PCL_CUSTOM_DIMENSIONS (w h)	Must be used in conjunction with the PCL escape code for custom paper size, <esc>&l101A 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): Example: 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 440/432/425 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
Condensed printing	<esc>&k2S	See DC Tip dc00cc0137 <i>Formatting Condensed Print for the Document Centre</i> , for examples and additional information

Feature Description	Implementation	Values
Stairstepping	<esc>k2G	Helps to resolve stairstepping in most instances.

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
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: yyyymmddhhmmss Hours in 24 hour time and the seconds field is always "00"
Resolution	@PJL SET RESOLUTION=400;;	Print resolution <u>must</u> 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)

Euro Character

For the **DC 440/432/425/420**, the euro character is present in the standard Latin fonts in the following PCL symbol sets:

PCL Symbol Set	Symbol Set Code	Code Page	Euro Sign Character Code
Windows 3.1 Latin 1	19U	1252	128
Windows 3.1 Latin 2	9E	1250	128
Windows 3.1 Latin 5	5T	1254	128

You can select these symbol sets as default from the Document Centre Web client and the local user interface. The euro character is not supported using other symbol sets including the "Win 3.0 Latin 1" (9U) or "ISO-Latin-9" (9N) symbol sets.

The following example illustrates how to print the euro character using PCL. It selects the "Antique Olive" font, 12 point size and the "Windows 3.1 Latin 1" symbol set.

```
<esc>%-12345X
  <esc>(19U<esc>(s1p12v0s0b4168T
The price of this unit is: €100.00
<esc>%-12345X
```

Examples of PCL Job Headers

NOTE: This is a print job header 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 - Print Job Header of a Simple Print Job

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

NOTE: This is a Group 3 Fax job header that contains fax numbers for two recipients. It also contains a command to print a confirmation sheet.

Example 2 - Fax Job Header that Includes Multiple Recipients

```
<esc>%-12345X@PJL COMMENT
@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 header contains the command for a Proof Print (Sample Set). This job does not include a banner sheet. The first copy prints on standard, white, 8 ½ x 11 paper duplexed for short edge binding. Five duplicate copies print when the job is released at the Document Centre.

Example 3 – Print Job Header that Includes a Proof Print

```
<esc>%-12345X@PJL COMMENT
@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 SET COPIES = 6
<esc>&12S
```

PCL Feature Dependencies/Caveats

- If you combine Printer Escape Commands (not including PJL commands) All alpha characters MUST be lowercase, except the final terminating character.
- If duplicate commands exist, the last one requested takes precedence.
- The @PJL SET COPIES takes precedence over the PCL Escape Command (<esc>& l 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.
- Do not duplex any job on media smaller than A6 (5.8 x 8.3 in. or 105 mm x 148 mm), including envelopes.
- Do not duplex transparency or label jobs.
- Any job with media smaller than A6, including envelopes, should print to the top tray.

LAN Fax Dependencies/Caveats

- A fax must include page size, print resolution and the Job Type set to FAX_SEND. See PCL Example 2. Depending on the job, you may need to include the <esc>E command 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.
- Include the Destination Phone Number(s) as the last comment(s) before the XRXend comment.
- Print drivers generate LAN fax cover pages. If you wish to include a cover sheet in a LAN fax, include it in the faxed document as the first page.
- There is no specific Group Fax command. You can accomplish the same effect by repeating the Fax Destination command to multiple recipients.
- The combined characters in all Fax Destination Phone Number fields cannot exceed 120. Send multiple faxes to accommodate Fax Destination Phone Number characters over the 120 character limit.

Appendix A - PostScript Fonts

The following PostScript fonts are resident with the Adobe interpreter on the DC 340/332/230/220 only:

AvantGarde-Book	Helvetica-Narrow-Oblique
AvantGarde-BookOblique	Helvetica-Narrow-Bold
AvantGarde-Demi	Helvetica-Narrow-BoldOblique
AvantGarde-DemiOblique	NewCenturySchlbk-Roman
Bookman-Light	NewCenturySchlbk-Italic
Bookman-LightItalic	NewCenturySchlbk-Bold
Bookman-Demi	NewCenturySchlbk-BoldItalic
Bookman-Demilight	Palatino-Roman
Courier	Palatino-Italic
Courier-Oblique	Palatino-Bold
Courier-Bold	Palatino-BoldItalic
Courier-BoldOblique	Symbol
Helvetica	Times-Roman
Helvetica-Oblique	Times-Italic
Helvetica-Bold	Times-Bold
Helvetica-BoldOblique	Times-BoldItalic
Helvetica-Narrow	ZapfChancery-MediumItalic
	ZapfDingbats

Additionally, a DC 340/332/230/220 supports the following downloadable font types. Downloaded fonts remain resident until the DC reboots. For a DC 440/432/425 with ESS 3.0.5.4 or later, you can use the Font Management tool to allow fonts to remain resident on the DC after a reboot.

Adobe Type 0 (composite font)

Adobe Type 1 (base font)

Adobe Type 3 (user defined base font)

Adobe Type 42 (True Type)

The following PostScript fonts are resident with the Adobe interpreter on the DC 440/432/420 only:

AdobeSansMM	Bodoni-Italic
AdobeSerifMM	Bodoni-Poster
AlbertusMT	Bodoni-PosterCompressed
AlbertusMT -Italic	Bookman-Demi
AlbertusMT -Light	Bookman-Demilight
AntiqueOlive-Bold	Bookman-Light
AntiqueOlive -Compact	Bookman-LightItalic
AntiqueOlive-Italic	Carta
AntiqueOlive-Roman	Chicago
Apple-Chancery	Clarendon
Arial-BoldItalicMT	Clarendon-Bold
Arial-BoldMT	Clarendon-Light
Arial-ItalicMT	CooperBlack
ArialMT	CooperBlack-Italic
AvantGarde-Book	Copperplate-ThirtyThreeBC
AvantGarde-BookOblique	Copperplate-ThirtyTwoBC
AvantGarde-Demi	Coronet-Regular
AvantGarde-DemiOblique	Courier
Bodoni	Courier-Bold
Bodoni-Bold	Courier-BoldOblique
Bodoni-BoldItalic	Courier-Oblique

Eurostile	LubalinGraph-DemiOblique
Eurostile-Bold	Marigold
Eurostile-BoldExtendedTwo	MonaLisa-Recut
Eurostile-ExtendedTwo	Monaco
Geneva	NewCenturySchlbk-Bold
GillSans	NewCenturySchlbk-BoldItalic
GillSans-Bold	NewCenturySchlbk-Italic
GillSans-BoldCondensed	NewCenturySchlbk-Roman
GillSans-BoldItalic	NewYork
GillSans-Condensed	Optima
GillSans-ExtraBold	Optima-Bold
GillSans-Italic	Optima-Bolditalic
GillSans-Light	Optima-Italic
GillSans-LightItalic	Oxford
Goudy	Palatino-Bold
Goudy-Bold	Palatino-BoldItalic
Goudy-BoldItalic	Palatine-Italic
Goudy-ExtraBold	Palatino-Roman
Goudy-Italic	StempelGaramond-Bold
Helvetica	StempelGaramond-BoldItalic
Helvetica-Bold	StempelGaramond-Italic
Helvetica BoldOblique	StempelGaramond-Roman
Helvetica Condensed	Symbol
Helvetica-Condensed Bold	Tekton
Helvetica-Condensed	Times-Bold
BoldObl	Times-BoldItalic
Helvetica-Condensed	Times-Italic
Oblique	Times-Roman
Helvetica Narrow	TimesNewRomanPS-BoldJtalicMT
Helvetica Narrow Bold	TimesNewRomanPS-BoldMT
Helvetica-Narrow	TimesNewRomanPS-ItalicMT
BoldOblique	TimesNewRomanPSMT
Helvetica-Narrow Oblique	Univers
Helvetica Oblique	Univers-Bold
HoeflerText Black	Univers-BoldExt
HoeflerText Blackitalic	Univers-BoldExtObl
HoeflerText Italic	Univers-BoldOblique
HoeflerText Ornaments	Univers-Condensed
HoeflerText-Regular	Univers-CondensedBold
JoannaMT	Univers-CondensedBoldOblique
JoannaMT-Bold	Univers-CondensedOblique
JoannaMT-BoldItalic	Univers-Extended
JoannaMT-Jtalic	Univers-ExtendedObl
LetterGothic	Univers-Light
LetterGothic-Bold	Univers-LightOblique
LetterGothic-BoldSlanted	Univers-Oblique
LetterGothic-Slanted	Wingdings-Regular
LubalinGraph-Book	ZapfChancery-Medium Italic
LubalinGraph-BookOblique	ZapfDingbats
LubalinGraph-Demi	

Appendix B - PCL Fonts

The following are the PCL fonts resident on a DC. A DC 220/230/332/340/420 maintains downloaded fonts until it reboots. With a DC 440/432/425 with ESS software version 3.0.5.4 or later, you can use the font management tool to allow downloaded fonts to remain after a reboot.

Each of these commands generates a 12-point font. If you wish to use another point size, change the "p12" to whatever size you wish (.25 - 999.75).

The commands also include instructions to use the default symbol set Roman-8. To make a change, place the symbol set you wish to use after the first <esc> and before the second <esc> (see the line printer examples in the font list that follows).

Font Name	PCL Escape Command
Albertus	<esc><esc>(s1p12v0s0b4362T
Albertus Extra Bold	<esc><esc>(s1p12v0s4b4362T
Antique Olive Bold	<esc><esc>(s1p12v0s3b4168T
Antique Olive Italic	<esc><esc>(s1p12v1s0b4168T
Antique Olive Medium	<esc><esc>(s1p12v0s1b4168T
Arial	<esc><esc>(s1p12v0s0b16602T
Arial Bold	<esc><esc>(s1p12v0s3b16602T
Arial Bold Italic	<esc><esc>(s1p12v1s3b16602T
Arial Italic	<esc><esc>(s1p12v1s0b16602T
CG Omega	<esc><esc>(s1p12v0s0b4113T
CG Omega Bold	<esc><esc>(s1p12v0s3b4113T
CG Omega Bold Italic	<esc><esc>(s1p12v1s3b4113T
CG Omega Italic	<esc><esc>(s1p12v1s0b4113T
CG Times	<esc><esc>(s1p12v0s0b4101T
CG Times Bold	<esc><esc>(s1p12v0s3b4101T
CG Times Bold Italic	<esc><esc>(s1p12v1s3b4101T
CG Times Italic	<esc><esc>(s1p12v1s0b4101T
Clarendon Bold Condensed	<esc><esc>(s1p12v4s3b4140T
Coronet Italic	<esc><esc>(s1p12v1s0b4116T
Courier	<esc><esc>(s0p12h0s0b4099T
Courier Bold	<esc><esc>(s0p12h0s3b4099T
Courier Bold Italic	<esc><esc>(s0p12h1s3b4099T
Courier Italic	<esc><esc>(s0p12h1s0b4099T
Garamond Antiqua	<esc><esc>(s1p12v0s0b4197T
Garamond Antiqua Halbfett	<esc><esc>(s1p12v0s3b4197T
Garamond Antiqua Halbfett Kursiv	<esc><esc>(s1p12v1s3b4197T
Garamond Antiqua Kursiv	<esc><esc>(s1p12v1s0b4197T
Letter Gothic	<esc><esc>(s0p12h0s0b4102T
Letter Gothic Bold	<esc><esc>(s0p12h0s3b4102T
Letter Gothic Italic	<esc><esc>(s0p12h1s0b4102T
Line Printer (Roman-8)	<esc>(8U<esc>(s0p16.67h8.5v0s0b0T
Line Printer (Latin-1)	<esc>(0N<esc>(s0p16.67h8.5v0s0b0T
Line Printer (PC-8)	<esc>(10U<esc>(s0p16.67h8.5v0s0b0T
Line Printer (PC-8 D/N)	<esc>(11U<esc>(s0p16.67h8.5v0s0b0T
Line Printer (PC-850)	<esc>(12U<esc>(s0p16.67h8.5v0s0b0T
Line Printer (Legal)	<esc>(1U<esc>(s0p16.67h8.5v0s0b0T
Marigold	<esc><esc>(s1p12v0s0b4297T
Symbol	<esc>(19M<esc>(s1p12v0s0b16686T
Times New Roman	<esc><esc>(s1p12v0s0b16901T
Times New Roman Bold	<esc><esc>(s1p12v0s3b16901T
Times New Roman Bold Italic	<esc><esc>(s1p12v1s3b16901T
Times New Roman Italic	<esc><esc>(s1p12v1s0b16901T
Univers Bold	<esc><esc>(s1p12v0s3b4148T
Univers Bold Condensed	<esc><esc>(s1p12v4s3b4148T
Univers Bold Condensed Italic	<esc><esc>(s1p12v5s3b4148T
Univers Bold Italic	<esc><esc>(s1p12v1s3b4148T
Univers Medium	<esc><esc>(s1p12v0s0b4148T
Univers Medium Condensed	<esc><esc>(s1p12v4s0b4148T
Univers Medium Condensed Italic	<esc><esc>(s1p12v5s0b4148T
Univers Medium Italic	<esc><esc>(s1p12v1s0b4148T
Wingdings	<esc>(579L<esc>(s1p12v0s0b31402T

Appendix C - ASCII Conversion Table

Dec	Oct	Hex	EBCDIC	Binary	Description
000	000	00	NUL	00000000	NULL
001	001	01	SOH	00000001	start-of-heading
002	002	02	STX	00000010	start-of-text
003	003	03	ETX	00000011	end-of-text
004	004	04	SEL	00000100	end-of-transmission
005	005	05	HT	00000101	enquiry
006	006	06	RNL	00000110	acknowledge
007	007	07	DEL	00000111	bell
008	010	08	GE	00001000	backspace
009	011	09	SPS	00001001	tab
010	012	0A	RPT	00001010	linefeed
011	013	0B	VT	00001011	vertical-tab
012	014	0C	FF	00001100	formfeed page
013	015	0D	CR	00001101	carriage-return
014	016	0E	SO	00001110	shift-out
015	017	0F	SI	00001111	shift-in
016	020	10	DLE	00010000	data-link-escape
017	021	11	DC1	00010001	XON
018	022	12	DC2	00010010	R
019	023	13	DC3	00010011	XOFF
020	024	14	RES/EN P	00010100	DC4 DCL
021	025	15	NL	00010101	negative- acknowledge
022	026	16	BS	00010110	synchronous-idle
023	027	17	PCO	00010111	end-of-transmission
024	030	18	CAN	00011000	cancel
025	031	19	EM	00011001	end-of-medium
026	032	1A	UBS	00011010	substitute
027	033	1B	CU1	00011011	escape
028	034	1C	IFS	00011100	field-separator
029	035	1D	IGS	00011101	group-separator
030	036	1E	IRS	00011110	record-separator
031	037	1F	ITB/IUS	00011111	unit-separator
032	040	20	DS	00100000	space
033	041	21	SOS	00100001	exclamation-point
034	042	22	FS	00100010	" straight-double
035	043	23	WUS	00100011	# number-sign
036	044	24	BYP/IN P	00100100	\$ dollar-sign
037	045	25	LF	00100101	% percent-sign
038	046	26	ETB	00100110	& ampersand
039	047	27	ESC	00100111	' apostrophe
040	050	28	SA	00101000	(left-parenthesis
041	051	29	SFE	00101001) right-parenthesis
042	052	2A	SM/SW	00101010	* asterisk
043	053	2B	CSP	00101011	+ addition-sign
044	054	2C	MFA	00101100	, comma
045	055	2D	ENQ	00101101	- hyphen
046	056	2E	ACK	00101110	. period
047	057	2F	BEL	00101111	/ right-slash
048	060	30		00110000	0
049	061	31		00110001	1
050	062	32	SYN	00110010	2
051	063	33	IR	00110011	3
052	064	34	PP	00110100	4
053	065	35	TRN	00110101	5
054	066	36	NBS	00110110	6
055	067	37	EOT	00110111	7

Dec	Oct	Hex	EBCDIC	Binary	Description
056	070	38	SBS	00111000	8
057	071	39	IT	00111001	9
058	072	3A	RFF	00111010	: colon
059	073	3B	CU3	00111011	; semicolon
060	074	3C	DC4	00111100	< less-than
061	075	3D	NAK	00111101	= equals
062	076	3E		00111110	> greater-than
063	077	3F	SUB	00111111	? question-mark
064	100	40	SP	01000000	@ at-symbol
065	101	41	RSP	01000001	A
066	102	42		01000010	B
067	103	43		01000011	C
068	104	44		01000100	D
069	105	45		01000101	E
070	106	46		01000110	F
071	107	47		01000111	G
072	110	48		01001000	H
073	111	49		01001001	I
074	112	4A	¢	01001010	J
075	113	4B	.	01001011	K
076	114	4C	<	01001100	L
077	115	4D	(01001101	M
078	116	4E	+	01001110	N
079	117	4F		01001111	O
080	120	50	&	01010000	P
081	121	51		01010001	Q
082	122	52		01010010	R
083	123	53		01010011	S
084	124	54		01010100	T
085	125	55		01010101	U
086	126	56		01010110	V
087	127	57		01010111	W
088	130	58		01011000	X
089	131	59		01011001	Y
090	132	5A	!	01011010	Z
091	133	5B	\$	01011011	[left-bracket
092	134	5C	*	01011100	\ left-slash backslash
093	135	5D)	01011101] right-bracket
094	136	5E	;	01011110	^ caret
095	137	5F	¬	01011111	_ underscore
096	140	60	-	01100000	` accent
097	141	61	/	01100001	a
098	142	62		01100010	b
099	143	63		01100011	c
100	144	64		01100100	d
101	145	65		01100101	e
102	146	66		01100110	f
103	147	67		01100111	g
104	150	68		01101000	h
105	151	69		01101001	i
106	152	6A		01101010	j
107	153	6B	,	01101011	k
108	154	6C	%	01101100	l
109	155	6D	_	01101101	m
110	156	6E	>	01101110	n
111	157	6F	?	01101111	o
112	160	70		01110000	p
113	161	71		01110001	q

Dec	Oct	Hex	EBCDIC	Binary	Description
114	162	72		01110010	r
115	163	73		01110011	s
116	164	74		01110100	t
117	165	75		01110101	u
118	166	76		01110110	v
119	167	77		01110111	w
120	170	78		01111000	x

Dec	Oct	Hex	EBCDIC	Binary	Description
121	171	79	'	01111001	y
122	172	7A	:	01111010	z
123	173	7B	#	01111011	{ left-brace
124	174	7C	@	01111100	vertical-bar
125	175	7D	'	01111101	} right-brace
126	176	7E	=	01111110	~ tilde
127	177	7F	"	01111111	^ delete

Additional Information

Xerox Customer Service welcomes feedback on all documentation - send feedback via e-mail to: USA.DSSC.Doc.Feedback@mc.usa.xerox.com.

You can reach Xerox Customer Support at 1-800-821-2797 (USA), TTY 1-800-855-2880 or at <http://www.xerox.com>.

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

XEROX®, The Document Company®, the digital X®, and all Xerox product names are trademarks of XEROX CORPORATION. Other trademarks belong to their respective owners.

Copyright © XEROX CORPORATION 2003. All Rights Reserved.

