

DC Tips

... for the user

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PDL Reference Guide for the DC 240/255/265 ST/LP and DC 490/480/470/460 ST

Accessing Extended Features

Extended Features:

- Accounting
- Proof Print
- Staple
- Collation
- Duplex
- Cover Options
- Media Source, Type, and Color
- Media Size
- Quantity
- Delay Print

Overview

This document contains information to help you access the extended features of a Document Centre in environments that do not have a custom driver. These include the following environments:

- Custom DOS packages
- Other platforms (including mainframes and minis)

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 items are also included:

- A table that describes features supported by the Document Centre.
- A PostScript table that describes the PostScript features and syntax the Document Centre supports.
- A PCL table, that describes the PCL features and syntax the Document Centre supports.

This document is not intended to be a complete PS or PCL reference manual; use it as a guide for using the PS and PCL commands for the Document Centres.

Refer to these additional reference materials *PostScript Language Reference Manual*, 2nd Edition, ISBN 0-201-18127-4 and *PCL 5 Printer Language Technical Reference Manual*, Hewlett-Packard Manual Part Number 5021-0377.

This document applies to these **Xerox** products:

x	DC 490/480/470/460 ST
	DC 420/425/432/440 ST
	DC 332/340 ST
x	DC 240/255/265 ST/LP
	DC 220/230 ST/LP
	DCCS 50

Using this Guide

1. Search the Feature Table to determine whether the feature you wish to use is supported.
2. Verify that the feature is supported by the platform. For example, the Document Centre must have the Finisher option installed to use stapling commands.
3. Follow across the table to find the syntax listed for the PDL examples shown. Read the Dependencies/Caveats section.

Print Features

The Document Centre supports PostScript level 2 and 3 commands or PCL5e and PCL6 escape sequences that enable the features listed in the following table.

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 paper tray that feeds a print job.
Media Type	Allows you to select the type of media used to print a job.
Media Color	Allows you to select the color of media color used to print a job.
Output Location	Allows you to select the output location where a job is delivered.
Stapling	Indicates stapling for a print job.
Collation	Allows you to select the order of the output pages. Collated creates a set that includes 1 copy of each page. Uncollated creates a stack of multiple copies of the same page.
Resolution	Allows you to select the resolution used to image a job. Currently, 600 x 600 x 1 (600 dpi resolution with 2 gray levels), 600 x 600 x 2 (600 dpi resolution with 4 gray levels), 1200 x 1200, and 1800 x 1800 are 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.
Front Cover Imaged/Unimaged	Allows you to select the type of front cover (blank or imaged).
Front Cover Media Type	Allows you to select the type of media for the front cover.
Front Cover Media Color	Allows you to select media color for the front cover.
Front and Back Cover Imaged/Unimaged	Allows you to select the type of front cover and the back cover (blank or imaged).
Front and Back Cover Media Type	Allows you to select the media type for both the front cover and the back cover.
Front and Back Cover Media Color	Allows you to select the media color for both the front cover and the back cover.
Accounting	Allows you to enter an accounting code and UserID to track printer usage. NOTE: This feature is not available on Document Centres 240/255/265 with version prior to 6.03 (ESS version LO.18.1.24).
Draft Mode Printing	Allows you to select a draft printing mode that conserves toner when printing.
Image Quality Selection	Allows you to increase or decrease the amount of toner used to create an image. Image quality levels range from 1 (darkest) to 7 (lightest).
Job Type	Allows you to select normal print, secure print, or proof print. Proof print is the same as sample set.
Printer Banner Sheet	Allows you to turn banner pages on or off based on individual jobs.
Interleave	Allows you to insert blank or imaged sheets between

Feature	Description
	transparencies.
Interleave Media Color	Allows you to select media color for the interleaves. Only use this feature in conjunction with the interleave feature.
Delay Print	Allows you to specify a time, up to 72 hours from the current printer time, to print a job.

PostScript

This section describes the PostScript commands required to access Document Centre features. This table lists each feature and the PostScript syntax used to enable the feature. Following this table are some examples of how to use these commands and PostScript file samples.

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

Print Features

Feature	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 x height] in 1/72 inch (points) [612 792] = Letter (8.5 x 11 inches) [612 1008] = Legal (8.5 x 14 inches) [792 1224] = Ledger (11 x 17 inches) [612 936] = Folio (8.5 x 13 inches) [522 756] = Executive (7.25 x 10.5 inches) [396 612] = 5.5 x 8.5 inches [360 504] = 5 x 7 inches [576 720] = 8 x 10 inches [648 792] = Letter Cover (9 x 11 inches) [864 1296] = 12 x 18 inches [324 432] = Postcard (4.5 x 6 inches) [842 1191] = A3 (297 x 420 mm) [595 842] = A4 (210 x 297 mm) [632 842] = A4 Cover (223 x 297 mm) [420 595] = A5 (148 x 210 mm) [297 420] = A6 (105 x 148 mm) [729 1032] = JIS B4 (257 x 364 mm) [516 729] = JIS B5 (182 x 257 mm) [363 516] = JIS B6 (128 x 182 mm) [624 936] = 220 x 330 mm [757 1100] = 815 Taiwan (267 x 388 mm) [420 567] = Oufuku (148 x 200 mm) NOTE: Use this command in conjunction with the Media Type and Media Color commands (see below in table).
Media Type	<</MediaType (string)>> setpagedevice	Where <i>string</i> is one of the following: bond, letterhead, standard, transparency, labels, drilled, recycled, preprinted, heavyweight, other, system default. NOTE: Use this command in conjunction with the commands Media Size and Media Color.
Media Color	<</MediaColor (string)>> setpagedevice	Where <i>string</i> is one of the following: buff, blue, clear, gray, green, ivory, orange, other, pink, red, white, yellow, goldenrod, unspecified. NOTE: Use this command in conjunction with the commands Media Size and Media Type.

Feature	Implementation	Values
Media Source	<</MediaPosition <i>int</i> >> setpagedevice	Where <i>int</i> is one of the following: 1 = Tray 1 2 = Tray 2 3 = Tray 3 4 = Tray 4 5 = Bypass Tray (SMH) 6 = High Capacity Feeder NOTE: See the media selection comments in the Dependencies / Caveats section.
Output Location – available on DC 460/470 ST only	<< /OutputType (<i>value</i>) >> setpagedevice OR %%OID_ATT_OUTPUT_BINS <i>value</i>	Where <i>value</i> is one of the following: TopTray MainTray Where <i>value</i> is one of the following: OID_VAL_OUTPUT_BIN_TOP or OID_VAL_OUTPUT_BIN_MAIN
Stapling	<</Staple <i>int</i> <</StapleDetails<</Type1/StapleLocation(<i>string</i>)>> >> >>setpagedevice	Where <i>int</i> is one of the following: 0 = No Staple 3 = Staple when set is complete Where <i>string</i> is one of the following three values: SinglePortrait (The Document Centre uses the staple head at the front of the Document Centre - Staple Head 1). SingleLandscape (The Document Centre uses the staple head at the back of the Document Centre - Staple Head 2). DualLandscape
Collation	<</Collate <i>value</i> >> setpagedevice	Where <i>value</i> is one of the following: true = Collated false = Uncollated
Resolution 600 x 600 x 1 1200 x 1200 x 1 1800 x 1800 x 1 600 x 600 x 2	<</DeviceRenderingInfo << /Type 4 /ValuesPerColorComponent 2 >> /HWResolution [<i>x y</i>]>> setpagedevice <</DeviceRenderingInfo << /Type 4 /ValuesPerColorComponent 4 >> /HWResolution [<i>x y</i>]>> setpagedevice	Where <i>x</i> and <i>y</i> are one of the following: 1200 1200 1800 1800 600 600
Quantity	<</NumCopies <i>int</i> >>setpagedevice OR %% OID_ATT_COPY_COUNT <i>value</i>	Where <i>int</i> or <i>value</i> is 1 to 9999 (1 to 999 for DC2xx devices)
Simplex	<</Duplex <i>value</i> >> setpagedevice	Where <i>value</i> is false
Duplex Long Edge Binding	<</Duplex true /Tumble <i>value</i> >> setpagedevice	Where <i>value</i> is false
Duplex Short Edge Binding	<</Duplex true /Tumble <i>value</i> >> setpagedevice	Where <i>value</i> is true
Orientation	<</PageSize[<i>height width</i>]>> setpagedevice	[<i>height/width</i>] in 1/72 inch (points) To print landscape, use the Media Size command with height and width reversed. For example: [792 612] = Letter, landscape [842 595] = A4, landscape

Feature	Implementation	Values
Front Cover Imaged Enable/Disable	%%OID_ATT_FIRST_PAGE_IMAGED "value"	Where <i>value</i> is TRUE or FALSE TRUE produces an imaged cover. FALSE produces a blank cover. NOTE: Use this command in conjunction with these commands: Front Cover Media Type and Front Cover Media Color.
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, pre-printed, heavyweight, other NOTE: Use this command in conjunction with these commands: Front Cover Imaged Enable and Front Cover Media Color.
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 NOTE: Use this command in conjunction with these commands: Front Cover Imaged Enable and Front Cover Media Type.
Front Cover Media Size	%%OID_ATT_FIRST_PAGE_MEDIA_SIZE "xxx yyy"	Where <i>xxx</i> and <i>yyy</i> are the media size expressed in mm. NOTE: Only use this optional command when printing blank front covers. Use in conjunction with Front Cover Image Enable/Disable and the commands it requires, that is, Front Cover Media Type and Front Cover Media Color.
Front & Back Cover Imaged Enable/Disable	%%OID_ATT_FIRSTLAST_PAGE_IMAGE D "value"	Where <i>value</i> is TRUE = an imaged front and back cover. or FALSE = a blank front and back cover. NOTE: Use this command in conjunction with these two commands: Front & Back Cover Media Type and Front & Back Cover Media Color.
Front & Back Cover Media Type	%%OID_ATT_FIRSTLAST_PAGE_MEDIA_TYPE "value";	Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other NOTE: Use this command in conjunction with these commands: Front & Back Cover Imaged Enable and Front & Back Cover Media Color).
Front & Back Cover Media Color	%%OID_ATT_FIRSTLAST_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 NOTE: Use this command in conjunction with these two commands: Front & Back Cover Imaged Enable and Front & Back Cover Media Type.
Front & Back Cover Media Size	%%OID_ATT_FIRSTLAST_PAGE_MEDIA_SIZE "xxx yyy"	Where <i>xxx</i> and <i>yyy</i> are the media size expressed in mm. NOTE: Only use this optional command when printing blank front and back covers. Use this command in conjunction with Front & Back Cover Image Enable/Disable and the commands it requires, that is, Front & Back Cover Media Type, Front & Back Cover Media Color.
Draft Mode Printing	%%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

Feature	Implementation	Values
Image Quality Selection	<</PostRenderingEnhance <i>value</i> <</PostRenderingEnhanceDetails <</Type 20 /DensityControl <i>n</i> >> >> >> setpagedevice	Where <i>value</i> is one of the following: False = Bold HP type output True = Xerox High Accuracy output Where <i>n</i> applies for Xerox High Accuracy Output and is a number in the range: -3 (lightest) to +3 (darkest)
Job Type	%%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_PROOF_PRINT
Printer Banner Sheet	%%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)
Interleave	%%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 NOTE: Use this command in conjunction with the command: Interleave Media Color.
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. NOTE: Use this command in conjunction with the command: Interleave.
Accounting	%%OID_ATT_ACCOUNTING_INFORMATION ON "UserID 042AccountID";	Where <i>UserID</i> is a value that the Printer Administrator assigns to a user. Where <i>AccountID</i> is a value that the Printer Administrator assigns to the account. NOTE: The User ID and the Account ID must be delimited by a 042.
Delay Print	%%OID_ATT_JOB_PRINT_AFTER "yyyymmddhhmmss"	Allows you to specify the time a job prints. You can set this time up to 72 hours from the current printer time. Where <i>yyyy</i> is the year, <i>mm</i> is the month, <i>dd</i> is the date, <i>hh</i> is the hour, <i>mm</i> is the minute of the hour, and <i>ss</i> is the second of that minute. NOTE: The hours are expressed in a 24-hour clock. For example: July 29, 1999 at 3:25 PM is expressed as: 19990729152500.

Euro Font

NOTE:
The DC 240/255/265 software levels L17.x do not have the ability to print the Euro glyph.

The Euro character is provided in all standard Latin fonts (letter fonts such as Helvetica and Times) included in the Adobe PostScript 3 interpreter of the DC 240/255/265, software level L18.6 or higher, and the DC 490/480/470/460. Special fonts such as ZapfDingbats do not contain the Euro symbol and the Symbol font does. Although the Euro character's "glyph" is added to the PostScript fonts, standard font encoding (that is, the character set) does not include the character.

To access the Euro character's glyph directly, use the glyphshow command as shown in the following example:

```
%!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
```


Basic PostScript Template

This section illustrates a standard PostScript template that is used to access general print features as well as Document Centre product specific features. This template lists each feature and the syntax, both Postscript commands and DSC (Document Structuring Conventions) required to use these features.

Section 1 (Adobe Reference Command)

```
%!PS
```

Section 2 (XRXbegin - Opening Comment Statement, Required)

```
%% XRXbegin
```

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 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
```

Sample PostScript Headers

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 Print

```
%!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
```

PostScript Feature Dependencies/Caveats

- All %% commands (DSC comments) must be in the first 4096 bytes of the job.
- When you use duplicate commands, the last command takes precedence. Since the setpagedevice commands are normally after the %% commands (DSC comments), the setpagedevice normally takes precedence.
- The Document Centre supports PostScript resolutions up to and including 1800 x 1800. Some PostScript jobs may not print if you use this resolution. If this occurs, print the same job at a lower resolution.
- Do not duplex any job with media smaller than A6 (5.8 x 8.3 in. or 105 x 148 mm).
- Do not duplex any transparency or label jobs.
- To use the duplex front and back imaged covers option most effectively, remember these items when you prepare the contents of the print file:
 - The Document Centre uses the contents of the first two and last two pages of the file as the front cover, inside front cover, back cover, and inside back cover.
 - The remaining pages print on the document body media type and color.
 - If a print file contains an odd number of pages, the Document Centre leaves the last body page (that is, the page adjacent to the inside back cover) blank.
- 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 uses the media size the document body.
- Use one of the following methods to specify media selection:
 - Describe the media size, color, and type attributes and allow the device to select the correct source tray. If you describe the media, leave source tray information out of the request or set to Auto. Otherwise, the tray selection defeats the auto tray selection capabilities of the device.
 - Indicate the media feed tray the device should use. In doing so, you allow the device to select media feed trays based on the paper type defined by SYSTEM DEFAULT, unless specified otherwise. This method prevents inadvertent use of special paper types. To override a paper type definition, include a paper type specification of UNSPECIFIED in the job.

PCL

This section describes the PCL commands required for specific features. This table lists each feature and the PCL syntax required to use the feature. Following this table are examples of how to use these commands and what the PCL file looks like.

Refer to these 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	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
Custom Paper Size – available on DC 460/470 ST and only for PCL	@PJL COMMENT OID_ATT_PCL_CUSTOM_DIMENSIONS (x.0 y.0) <esc>101A	Where <i>x</i> and <i>y</i> are millimeters expressed as integer. Note: Both the PJL comment and the escape code must be used. The value 101 in the escape code states that this is a custom size job. The PJL comment communicates the media size to be used.

Feature	Implementation	Values
Media Size	<esc> & I <i>int</i> A	<p>Where <i>int</i> is one of the following:</p> <ul style="list-style-type: none"> 2 = Letter (8.5 x 11 inches) 3 = Legal (8.5 x 14 inches) 6 = Ledger (11 x 17 inches) 44 = 8.5 x 13 inches (215 x 330 mm) 1 = 7.25 x 10.5 inches 41 = Statement (8.5 x 5.5 inches) 204 = 5 x 7 inches 208 = 8 x 10 inches 201 = 9 x 11 inches 213 = 12 x 18 inches 214 = 12 x 19 inches 27 = A3 (297 x 420 mm) 26 = A4 (210 x 297 mm) 200 = Oversized A4 (223 x 297 mm) 25 = A5 (148 x 210 mm) 203 = A6 (105 x 148 mm) 46 = B4 (257 x 364 mm) 45 = B5 (182 x 257 mm) 205 = B6 (128 x 182 mm) 43 = 215 x 315 mm 212 = 220 x 330 mm 210 = 267 x 388 mm 72 = Oufuku-Hagaki (Postcard 148x200) <ul style="list-style-type: none"> 197 = SR A3 71 = Postcard (100x148) 211 = Postcard (4.5 x 6 inches) 80 = Monarch Envelope (98 x 191 mm) 81 = #10 Envelope 90 = DL Envelope (110 x 220 mm) 91 = C5 Envelope 206 = Envelope (6 x 9 inches) 207 = Envelope (9 x 12 inches) <p>NOTE: Use this command in conjunction with the following two commands, Media Type and Media Color. All paper sizes are not supported by all products. Please check the product's documentation for paper sizes it supports.</p>
Media Type	@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE "value"	<p>Where <i>value</i> is one of the following: standard, transparency, labels, drilled, recycled, pre-printed, heavyweight, other.</p> <p>NOTE: Use this command in conjunction with the Media Size and Media Color commands.</p>
Media Color	@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_COLOR "value"	<p>Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other.</p> <p>NOTE: Use this command in conjunction with the Media Size and Media Type commands.</p>
Media Source	<esc> & I <i>int</i> H	<p>Where <i>int</i> is one of the following:</p> <ul style="list-style-type: none"> 0 = Auto Select 1 = Tray 1 2 = Bypass Tray 4 = Tray 2 5 = High Capacity Feeder 23 = Tray 3 24 = Tray 4 <p>NOTE: See the media selection comments in the "Dependencies / Caveats" section.</p>
Output Location – available on DC 460/470 ST only	@PJL COMMENT OID_ATT_OUTPUT_BINS <i>value</i>	<p>Where <i>value</i> can be one of the following:</p> <ul style="list-style-type: none"> OID_VAL_OUTPUT_BIN_TOP OID_VAL_OUTPUT_BIN_MAIN

Feature	Implementation	Values
Stapling	@PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE; @PJL COMMENT XRXSTAPLE = <i>value</i>	Where <i>value</i> is one of the following: PORTRAIT(the Document Centre uses the Staple Head at the front – Staple Head 1) DUAL
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
Resolution	@PJL SET RESOLUTION = <i>value</i> ;	Where <i>value</i> is the following: 600
Quantity	<esc> & I <i>int</i> X or @PJL SET COPIES = <i>int</i>	Where <i>int</i> is: 1 to 9999 (1 to 999 for DC2xx devices)
Simplex	<esc> & I <i>int</i> S	Where <i>int</i> is the following: 0 = Simplex
Duplex	<esc> & I <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> & I <i>int</i> O	Where <i>int</i> is one of the following: 0 = Portrait 1 = Landscape
Front Cover Imaged Enable/Disable	@PJL COMMENT OID_ATT_FIRSTLAST_PAGE_IMAGED <i>value</i> ;	Where <i>value</i> is one of the following: TRUE = an imaged cover or FALSE = a blank cover NOTE: Use this command in conjunction with the following two commands: Front Cover Media Type and Front Cover Media Color.
Front Cover Media Type	@PJL COMMENT OID_ATT_FIRST_PAGE_MEDIA_TYPE " <i>value</i> "	Where <i>value</i> is one of the following: system-default, standard, transparency, labels, drilled, recycled, preprinted, heavyweight, other. NOTE: Use this command in conjunction with these commands: Front Cover Imaged Enable and Front Cover Media Color.
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 NOTE: Use this command in conjunction with these commands: Front Cover Imaged Enable and Front Cover Media Type.
Front Cover Media Size	@PJL COMMENT OID_ATT_FIRST_PAGE_MEDIA_SIZE "xxx yyy"	Where xxx and yyy are the media size expressed in mm. NOTE: Only use this optional command when printing blank front covers. Use this command with Front Cover Imaged Enable/Disable and the commands it requires, that is, Front Cover Media Type, Front Cover Media Color, and Front Cover Imaged Enable/Disable.
Front and Back Cover Imaged/Unimaged	@PJL COMMENT OID_ATT_FIRSTLAST_PAGE_IMAGED <i>value</i>	Where <i>value</i> is one of the following: TRUE = an imaged front and back or FALSE = a blank front and back cover NOTE: This command must be used in conjunction with the following two commands: Front & Back Cover Media Type and Front & Back Cover Media Color.
Front & Back Cover Media Type	@PJL COMMENT OID_ATT_FIRSTLAST_PAGE_MEDIA_TY PE " <i>value</i> "	Where <i>value</i> is one of the following: system-default, standard, transparency, labels, drilled, recycled, pre-printed, heavyweight, other NOTE: Use this command in conjunction with these commands: Front and Back Cover Imaged Enable and Front and Back Cover Media Color.

Feature	Implementation	Values
Front & Back Cover Media Color	@PJL COMMENT OID_ATT_FIRSTLAST_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 NOTE: Use this command in conjunction with these commands: Front & Back Cover Imaged Enable and Front & Back Cover Media Type.
Front & Back Cover Media Size	@PJL COMMENT OID_ATT_FIRSTLAST_PAGE_MEDIA_SIZ E "xxx yyy"	Where <i>xxx</i> and <i>yyy</i> are the media size expressed in mm. NOTE: Only use this option when printing blank front and back covers. Use this command in conjunction with the Front/Back Cover Image Enable/Disable command and the commands it requires, that is, Front/Back Cover Media Type, Front/Back Cover Media Color, and Front/Back Cover Imaged Enable/Disable.
Image Quality Selection	@PJL SET DENSITY= <i>value</i>	Where <i>value</i> is a number in the range 1 (lightest) to 7 (darkest).
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_PROOF_PRINT
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)
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 "value"	Where <i>value</i> is one of the following: yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other
Accounting	@PJL COMMENT OID_ATT_ACCOUNTING_INFORMATION "UserID 042AccountID";	Where <i>UserID</i> is a value the Printer Administrator has assigned to a user. Where <i>AccountID</i> is a value the Printer Administrator has assigned to the account. NOTE: You must delimit the User ID and the Account ID with a 042.
Delay Print	@PJL COMMENT OID_ATT_JOB_PRINT_AFTER "yyyymmddhhmmss"	Where <i>yyyy</i> is the year, <i>mm</i> is the month, <i>dd</i> is the date, <i>hh</i> is the hour, <i>mm</i> is the minute of the hour, and <i>ss</i> is the second of that minute. NOTE: The hours are expressed in a 24 hour clock. For example: July 29, 1999 at 3:25 PM is expressed as: 19990729152500.
Condensed Printing	<esc>&k2S	See the DC Tip <i>Formatting Condensed Print for Document Centre</i> , for examples and additional information.
Stair-stepping	<esc>k2G	Helps to resolve stair-stepping in most instances.

Euro Font

For the DC 240/255/265 software level L18.6 or higher and DC 490/480/470/460 the Euro character is provided in all of the standard Latin 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 "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
```

The DC 240/255/265 software levels L17.x do not have the ability to print the Euro character.

Basic PCL Template

This section illustrates a standard PCL template used to access general print features as well as Document Centre product specific features. This template lists each feature and the syntax, both PCL commands and PJI, to use them. The next section of this document contains other examples using these commands.

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@PJI JOB
```

Section 2 (PJI Set Commands)

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

Section 3 (XRXbegin – Opening Comment Statement, Required)

```
@PJI COMMENT XRXbegin
```

Section 4 (PJI Comments)

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

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

```
@PJI COMMENT XRXend
```

Section 6 (PCL Code used to invoke PCL Language)

```
@PJI 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 be printed out inserted here]

```
_%1BINWU0PW0,0PW0,1UL1,60,40UL2,12.5,12.5,12.5,12.5,12.5,12.5,12.5UL3,40,25,
10,25UL4,35,15,10,15,10,15LT0,10,1LTLA1,4,2,1SP1TR0CF2_%1A_&I1X_&I1S_&I0H_&I0o
6a4d1E_*t600R_*v1onT_*rF_*c7181x4609Y_*p162x555Y_*cT_*pxY_%1BIP0,0,1016,1016
SC0,600,0,600;_%1A_*v1O_*v1T_%0BFT10,0;_%0A_*p544x855Y_*c2160a3200b1P_(19U
_(s4099t0b0s20.00h0P_*vT_%0BFT;_%0A_*p544x883Y
```

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

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

Sample PCL Headers

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

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 be printed 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&I 2G
[Insert document or text to be printed here]
<ESC>%-12345X
```

PCL Feature Dependencies/Caveats

- All PCL commands must be in the first 4096 bytes of the job.
- To combine printer escape commands (not including PCL 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 commands in the order you wish them to execute.

For example, combine print 5 copies (<ESC>&I 5X) and use letter size (<ESC>&I 2A) as <ESC>&I 5x2A.

- In case of duplicate commands, the last one requested takes precedence.
- The @PJL SET COPIES takes precedence over the PCL Escape Command (<ESC> & I int X>) to set copies. In general, a PCL command takes precedence over a PCL command.
- Do not duplex any job with media smaller than A6 (5.8 x 8.3 in. or 105 x 148 mm).

- Do not duplex any job with transparencies or labels.
- To use the duplex front and back imaged covers option most effectively, remember these items when you prepare the contents of the print file:
 - The Document Centre uses the contents of the first two and last two pages of the file as the front cover, inside front cover, back cover, and inside back cover.
 - The remaining pages print on the document body media type and color.
 - If a print file contains an odd number of pages, the Document Centre leaves the last body page (that is, the page adjacent to the inside back cover) blank.
- 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 assigns the document body size as the cover media size.
- Use one of the methods described in the following list to specify media selection:
 - Describe the media size, color, and type attributes and allow the device to select the correct source tray. If you describe the media, leave source tray information out of the request or set to Auto. Otherwise, the tray selection defeats the auto tray selection capabilities of the device.
 - Indicate the media feed tray the device should use. In doing so, you allow the device to select media feed trays based on paper type defined by SYSTEM DEFAULT unless specified otherwise. This method prevents inadvertent use of special paper types. To override a paper type definition, include a paper type specification of UNSPECIFIED in the job.

PostScript Fonts

The following PostScript fonts are resident with the Adobe interpreter. Fonts marked with ** are removed from the 2001 Edition Software for DC 490/480/470/460 (release 07.19.02.051 and above); please see the DC Tip, *Fonts Removed from Document Centres with 2001 Edition Software* for more details.

ACaslon-Italic**	ACaslon-Regular**	ACaslon-Semibold**
ACaslon-SemiboldItalic**	AdobeSansMM	AdobeSerifMM
AGaramond-Bold**	AGaramond-BoldItalic**	AGaramond-Italic**
AlbertusMT	AlbertusMT-Italic	AlbertusMT-Light
Americana**	Americana-ExtraBold**	AntiqueOlive-Bold
AntiqueOlive-Compact	AntiqueOlive-Italic	AntiqueOlive-Roman
Apple-Chancery	Arial-BoldItalicMT	Arial-BoldMT
Arial-ItalicMT	ArialMT	AvantGarde-Book
AvantGarde-BookOblique	AvantGarde-Demi	AvantGarde-DemiOblique
Barmeno-Bold**	Barmeno-ExtraBold**	Barmeno-Medium**
Barmeno-Regular**	Blackoak**	Bodoni
Bodoni-Bold	Bodoni-BoldItalic	Bodoni-Italic
Bodoni-Poster	Bodoni-PosterCompressed	Bookman-Demi
Bookman-Demitalic	Bookman-Light	Bookman-LightItalic
Carta	Chicago	Clarendon
Clarendon-Bold	Clarendon-Light	CooperBlack
CooperBlack-Italic	Copperplate-ThirtyThreeBC	Copperplate-ThirtyTwoBC
Coronet-Regular	Courier	Courier-Bold
Courier-BoldOblique	Courier-Oblique	Eurostile
Eurostile-Bold	Eurostile-BoldExtendedTwo	Eurostile-ExtendedTwo
Formata-Italic**	Formata-Medium**	Formata-MediumItalic**
Formata-Regular**	Garamond-Bold**	Garamond-BoldItalic**
Garamond-Light**	Garamond-LightItalic**	Geneva
GillSans	GillSans-Bold	GillSans-BoldCondensed
GillSans-BoldItalic	GillSans-Condensed	GillSans-ExtraBold
GillSans-Italic	GillSans-Light	GillSans-LightItalic
Goudy	Goudy-Bold	Goudy-BoldItalic
Goudy-ExtraBold	Goudy-Italic	Helvetica
Helvetica-Black**	Helvetica-BlackOblique**	Helvetica-Bold
Helvetica-BoldOblique	Helvetica-Condensed	Helvetica-Condensed-Bold
Helvetica-Condensed-BoldObl	Helvetica-Condensed-Oblique	Helvetica-Light**
Helvetica-LightOblique**	Helvetica-Narrow	Helvetica-Narrow-Bold
Helvetica-Narrow-Oblique	Helvetica-Oblique	HoeflerText-Black
HoeflerText-BlackItalic	HoeflerText-Italic	HoeflerText-Ornaments

HoeflerText-Regular	JoannaMT	JoannaMT-Bold
JoannaMT-BoldItalic	JoannaMT-Italic	Kaufmann**
Korinna-Bold**	Korinna-KursivBold**	Korinna-KursivRegular**
Korinna-Regular**	LetterGothic	LetterGothic-Bold
LetterGothic-BoldSlanted	LetterGothic-Slanted	Lithos-Black**
Lithos-Regular**	LubalinGraph-Book	LubalinGraph-BookOblique
LubalinGraph-Demi	LubalinGraph-DemiOblique	Marigold
Monaco	MonaLisa-Recut	NewCenturySchlbk-Bold
NewCenturySchlbk-Bold	NewCenturySchlbk-BoldItalic	NewCenturySchlbk-Italic
NewCenturySchlbk-Roman	NewYork	Optima
Optima-Bold	Optima-BoldItalic	Optima-Italic
Oxford	Palatino-Bold	Palatino-BoldItalic
Palatino-Italic	Palatino-Roman	Parisian**
ParkAvenue**	Poetica-SuppOrnaments**	StempelGaramond-Bold
StempelGaramond-BoldItalic	StempelGaramond-Italic	StempelGaramond-Roman
Symbol	Tekton	Tekton-Bold**
Times-Bold	Times-BoldItalic	Times-Italic
TimesNewRomanPS-BoldItalicMT	TimesNewRomanPS-BoldMT	TimesNewRomanPS-ItalicMT
TimesNewRomanPSMT	Times-Roman	Trajan-Bold**
Univers	Univers-Bold	Univers-BoldExt
Univers-BoldExtObl	Univers-BoldOblique	Univers-Condensed
Univers-CondensedBold	Univers-CondensedBoldOblique	Univers-CondensedOblique
Univers-Extended	Univers-ExtendedObl	Univers-ExtendedObl
Univers-Light	Univers-LighOblique	Univers-Oblique
Wingdings-Regular	WoodtypeOrnaments-Two**	ZapfChancery-MediumItalic
ZapfDingbats		

PCL Fonts

The following PCL fonts are resident with the Phoenix interpreter.

Each of these commands reference a 12-point font. If you wish to use any other point size, simply change the 12v to the desired size (.25 - 999.75).

The commands listed use the default symbol set, Roman-8. To change the symbol set, include the alternate symbol set after the first <ESC> and before the second <ESC>. Use the line printer examples in the following table as a reference.

Font Name	PCL Escape Command
Albertus Medium	<esc><esc>(s1p12v0s1b4362T
Albertus Extra Bold	<esc><esc>(s1p12v0s4b4362T
Antique Olive	<esc><esc>(s1p12v0s0b4168T
Antique Olive Bold	<esc><esc>(s1p12v0s3b4168T
Antique Olive Italic	<esc><esc>(s1p12v1s0b4168T
Arial	<esc><esc>(s1p12v0s0b16602T
Arial Bold	<esc><esc>(s1p12v0s3b16602T
Arial Italic	<esc><esc>(s1p12v1s0b16602T
Arial Bold Italic	<esc><esc>(s1p12v1s3b16602T
CG Times	<esc><esc>(s1p12v0s0b4101T
CG Times Bold	<esc><esc>(s1p12v0s3b4101T
CG Times Italic	<esc><esc>(s1p12v1s0b4101T
CG Times Bold Italic	<esc><esc>(s1p12v1s3b4101T
CG Omega	<esc><esc>(s1p12v0s0b4113T
CG Omega Bold	<esc><esc>(s1p12v0s3b4113T
CG Omega Italic	<esc><esc>(s1p12v1s0b4113T
CG Omega Bold Italic	<esc><esc>(s1p12v1s3b4113T
Clarendon Condensed	<esc><esc>(s1p12v4s3b4140T
Coronet	<esc><esc>(s1p12v1s0b4116T
Courier	<esc><esc>(s0p12h0s0b4099T
Courier Bold	<esc><esc>(s0p12h0s3b4099T
Courier Italic	<esc><esc>(s0p12h1s0b4099T
Courier Bold Italic	<esc><esc>(s0p12h1s3b4099T
Garamond Antiqua	<esc><esc>(s1p12v0s0b4197T
Garamond Halbfett	<esc><esc>(s1p12v0s3b4197T
Garamond Kursiv	<esc><esc>(s1p12v1s0b4197T
Garamond Kursiv Halbfett	<esc><esc>(s1p12v1s3b4197T
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

Font Name	PCL Escape Command
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
Times New	<esc>(<esc>(s1p12v0s0b16901T
Times New Bold	<esc>(<esc>(s1p12v0s3b16901T
Times New Italic	<esc>(<esc>(s1p12v1s0b16901T
Times New Bold Italic	<esc>(<esc>(s1p12v1s3b16901T
Symbol	<esc>(19M<esc>(s1p12v0s0b16686T
Wingdings	<esc>(579L<esc>(s1p12v0s0b31402T
Univers Bold	<esc>(<esc>(s1p12v0s3b4148T
Univers Bold Italic	<esc>(<esc>(s1p12v1s3b4148T
Univers Bold Condensed	<esc>(<esc>(s1p12v4s3b4148T
Univers Bold Condensed Italic	<esc>(<esc>(s1p12v5s3b4148T

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/ENP	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/INP	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

Dec	Oct	Hex	EBCDIC	Binary	Description
054	066	36	NBS	00110110	6
055	067	37	EOT	00110111	7
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

Dec	Oct	Hex	EBCDIC	Binary	Description
111	157	6F	?	01101111	o
112	160	70		01110000	p
113	161	71		01110001	q
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
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

The Xerox Document Centre Technical Support Operations welcomes feedback on all DC Tips documentation - send feedback via e-mail to:

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