Xerox Document Centre

DC Tips

dc02cc0304 September 20, 2002 ... for the user

PDL Reference Guide for the DC 555/545/535

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 enables you to access the extended features of the Document Centre in environments that do not have a custom driver. This includes the following environments:

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

NOTE: Some of the commands and syntax used in this document requires some 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 the Document Centre supports and the syntax to use the feature.
- A PCL table that describes the PCL features the Document Centre supports and the syntax to use the feature.

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

Refer to these additional reference materials *PostScript Language Reference Manual*, Third Edition, ISBN 0-201-37922-8 and *PCL 5 Printer Language Technical Reference Manual*, Hewlett-Packard Manual Part Number 5021-0377.

This document pertains to these Xerox products:

| x | DC 555/545/535 |
|----|--------------------------|
| | DC 490/480/470/460 ST |
| | DC 420/425/432/440 ST |
| | DC 332/340 ST |
| | DC 240/255/265 ST/LP |
| 16 | DC 220/230 ST/LP |
| | DCCS 50 |

Using this Guide

- 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.

| | the realures 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 type to media used to print a job. |
| Media Color | Allows you to select the color of media 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. |
| Hole Punching | Indicates hole drilling/punching after print job completes. |
| Collation | Allows you to select the order of the output. 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, $600 \times 600 \times 1$ (600 dpi resolution with 2 gray levels), $600 \times 600 \times 2$ (600 dpi resolution with 4 gray levels), 1200×1200 , and 1800×1800 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. |
| Forcing Short-Edge Feed | Allow you to force some media sizes to print with the short-edge of the paper fed first. |
| Front Cover Imaged/Unimaged | Allows you to select a blank or imaged front cover. |
| 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. |
| Front and Back Cover Imaged/Unimaged | Allows you to select blank or imaged front and back covers. |
| Front and Back Cover Media Type | Allows you to select the media type for the front and back covers. |
| Front and Back Cover Media Color | Allows you to select the media color for the front and back cover. |
| Accounting | Allows you to enter an accounting code and UserID to track printer usage. |
| | NOTE: This feature requires the optional Network Accounting kit. |
| Draft Mode Printing | Allows you to select 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. |

NOTE:

The Secure Print feature is not referenced in this document. This feature requires the encryption scheme that encodes the secure print password and is Xerox Private Data.

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| Feature | Description |
|------------------------|---|
| Printer Banner Sheet | Allows you to turn printer banner pages on or off based on individual jobs. |
| Interleave | Allows you to insert blank or imaged sheets between 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 specific Document Centre features. This table lists each feature and the PostScript syntax that is required to use the feature. Following this table are some examples of how to use these commands and what the PostScript file looks like.

For more information about PostScript commands, refer to the *PostScript Language Reference Manual*, Third Edition, ISBN 0-201-37922-8.

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 string is a maximum of 40 characters |
| Media Size | > setpagedevice | Where string is a maximum of 40 characters (width x height] in 1/72 inch (points) (612 792) |
| Media Type | <> setpagedevice | Where string is one of the following: bond, letterhead, standard, transparency, labels, drilled, recycled, preprinted, cardstock, other, system-default, envelopes, tabs, Custom1 – Custom7 NOTE: Use this command in conjunction with the |
| Media Color | /MediaColor (string) > setpagedevice | commands Media Size and Media Color. Where string is one of the following: buff, blue, clear, gray, green, ivory, orange, other, pink, red, white, yellow, goldenrod, unspecified, Custom1 - Custom 7. NOTE: Use this command in conjunction with the two commands Media Size and Media Type. |

| Feature | Implementation | Values |
|---|---|---|
| Media Source | /MediaPosition int > setpagedevice | Where int is one of the following: 0 = Auto Select 1 = Tray 1 2 = Tray 2 3 = Tray 3 (High Capacity) 4 = Tray 4 (High Capacity) 5 = Bypass Tray (SMH) |
| | | NOTE: See the media selection comments in the Dependencies / Caveats section. |
| Output Location – options supported depend on output device. | <pre><</pre> <pre> </pre> <pre>OR %%OID_ATT_OUTPUT_BINS value </pre> | Where string can be one of the following: When a catch tray is installed: SideTray When a 2000 Sheet Stapler Stacker (Office Finisher) is installed: TopTray Stacker Where value can one of the following: OID_VAL_OUTPUT_BIN_TOP or OID_VAL_OUTPUT_BIN_SIDE OID_VAL_OUTPUT_BIN_STACKER NOTE: You cannot use the finisher stacker tray |
| | | with envelopes and labels. Stapling or punching requires use of the stacker tray. If you indicate an invalid combination of commands, the output location request is ignored. |
| Stapling | /Staple int <//StapleDetails<</Type1/StapleLocation (string) > >> >>setpagedevice | Where <i>int</i> is one of the following: 0 = No Staple 3 = Staple at the end of set Where <i>string</i> is one of the following three values: SinglePortrait - for single staple in portrait documents. SingleLandscape - for single staple in Landscape documents DualLandscape - two staples |
| | | NOTE: Refer to the "Single Staple Location" table later in this document, for information about staple location restrictions. |
| Hole Punching | <pre><> >> setpagedevice</pre> | Where <i>int</i> is one of the following: 0 = No Punch 4 = Punch each page NOTE: You can use the hole punching command with 8.5 x 11", 11 x 17", 9 x 11", A4, A3 and A4 cover size media only. Use the "rotated landscape" orientation with 11 x 17" |
| Collation | <> setpagedevice | and A3 pages. Where value is one of the following: true = Collated false = Uncollated |

| Feature | Implementation | Values |
|--------------------------|---|---|
| Resolution | • | Where x and y are one of the following: |
| | | 600 600 |
| 600 x 600 x 1 | < <td>1200 1200 1800 1800</td> | 1200 1200 1800 1800 |
| 1200 x 1200 x 1 | >> /HWResolution [x y]>> setpagedevice | |
| 1800 x 1800 x 1 | | |
| 600 x 600 x 2 | <> /HWResolution [x y]>> setpagedevice | |
| | | |
| Quantity | <>setpagedevice OR | Where int or value is 1 to 9999 |
| | %% OID_ATT_COPY_COUNT value | |
| Simplex | <> setpagedevice | Where value is false |
| Duplex Long Edge | <> | Where value is false |
| Binding | setpagedevice | |
| Duplex Short Edge | | Where <i>value</i> is true |
| Binding | setpagedevice | [height/width] in 1/72 inch (points) |
| Landscape Orientation | <> setpagedevice | To print landscape, use the Media Size command with height and width reversed. For example: [792 612] = Letter, landscape [842 595] = A4, landscape |
| | | For landscape documents printed on 11 x 17", 8.5 x13", 8.5 x 14" or A3, apply a 180° rotation to landscape pages to ensure the correct location of stapling or punching. |
| | | Use the PostScript command: "0 0 moveto 180 rotate -height -width translate" which should appear after any "setpagedevice" commands. The following example, for an A3 landscape page illustrates this syntax. |
| | | <pre><> setpagedeviceany other "setpagedevice" commands. 0 0 moveto 180 rotate -1191 -842 translaterest of print commands for page.</pre> |
| Force short edge | %%OID_ATT_FEED_EDGE value; | Where <i>value</i> is one of the following: |
| feeding | or | For portrait documents use: OID_VAL_FEED_EDGE_SHORT_TRAILING For landscape documents use: OID_VAL_FEED_EDGE_SHORT_LEADING Where int is one of the following: |
| | << /LeadingEdge int >> setpagedevice | For portrait documents use: 2 For landscape documents use: 0 |
| | | NOTE: The following media sizes default to printing with the long-edge fed first: Letter, Letter Cover, Statement, Executive, 8 x 10", A4, A4 Cover and B5. It is possible to force these media sizes to print with short-edge first. |
| | | |

| Feature | Implementation | Values |
|----------------------------|---|--|
| Front Cover | %%OID ATT FIRST PAGE IMAGED | Where value is |
| Imaged Enable/ Disable | "value" | 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, |
| Турс | WEDIA_TTTE value, | pre-printed, heavyweight, other |
| | | NOTE: Use this command in conjunction with |
| | | these commands: Front Cover Imaged Enable |
| Frank Oarra Madia | 0/0/OID ATT FIRST DAGE | 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, |
| 00.01 | MEDIT COLOTT Value , | pink, goldenrod, orange, blue, other |
| | | NOTE: Use this command in conjunction with |
| | | these commands: Front Cover Imaged Enable |
| Front Cover Media | %%OID_ATT_FIRST_PAGE_MEDIA_SIZ | and Front Cover Media Type. Where xxx and yyy are the media size |
| Size | E "xxx yyy" | expressed in mm. |
| | ,,,, | NOTE: This command is optional. Use only |
| | | when printing blank front covers. Use this |
| | | command in conjunction with the Front Cover Image Enable/Disable and the commends it |
| | | required, that is, Front Cover Media Type, Front |
| | | Cover Media Color, and Front Cover Imaged |
| | | Enable/Disable. |
| Front & Back | %%OID_ATT_FIRSTLAST_PAGE_IMAG | Where <i>value</i> is |
| Cover Imaged Enable/ | ED "value" | TRUE = an imaged front and back cover. or |
| Disable | | FALSE = a blank front and back cover. |
| | | NOTE: Use this command in conjunction with |
| | | these commands: Front & Back Cover Media |
| Front & Back | %%OID_ATT_FIRSTLAST_PAGE_ | Type and Front & Back Cover Media Color. Where value is one of the following: |
| Cover Media Type | MEDIA TYPE "value"; | standard, transparency, labels, drilled, recycled, |
| 7,1 | _ | pre-printed, heavyweight, other |
| | | NOTE: Use this command in conjunction with |
| | | these commands: Front & Back Cover Imaged Enable and Front & Back Cover Media Color. |
| Front & Back | %%OID ATT FIRSTLAST PAGE | Where <i>value</i> is one of the following: |
| Cover Media Color | MEDIA_COLOR "value"; | 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 | %%OID_ATT_FIRSTLAST_PAGE_MEDI | Where xxx and yyy are the media size |
| Cover Media Size | A_SIZE "xxx yyy" | expressed in mm. |
| | | NOTE: This command is optional. Use only |
| | | when printing blank front and back covers. This command must be used in conjunction with the |
| | | Front & Back Cover Image Enable/Disable and |
| | | the commands it requires, that is, Front & Back |
| | | Cover Media Type, Front & Back Cover Media |
| | | Color, and Front & Back Cover Imaged Enable/Disable. |
| Draft Mode | %%OID ATT PRINT | Where <i>value</i> is one of the following: |
| Printing | QUALITY value; | OID_VAL_PRINT_QUALITY_NORMAL |
| | | OID_VAL_PRINT_QUALITY_DRAFT |

| Feature | Implementation | Values |
|----------------------------|---|--|
| Image Quality Selection | %%OID_ATT_IMAGE_QUALITY n; | Where value 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 0 (normal) to +3 (darkest) |
| Job Type | %%OID_ATT_JOB_TYPE value; | Where value is one of the following: OID_VAL_JOB_TYPE_PRINT OID_VAL_JOB_TYPE_PROOF_PRINT |
| Printer Banner Sheet | %%OID_ATT_START_SHEET value; | Where value is one of the following: OID_VAL_JOB_SHEET_FULL (On) OID_VAL_JOB_SHEET_NONE (Off) |
| Interleave | %%OID_ATT_INTERLEAVE value; | Where value 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_INFORMA TION "UserID 042AccountID"; | Where UserID is a value that the Printer Administrator assigns to a user. Where AccountID 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. Yyou can set this time up to 72 hours from the current printer time. Where yyyy is the year, mm is the month, dd is the date, hh is the hour, mm is the minute of the hour, and ss 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

The Euro character is provided in all standard Latin fonts (letter fonts such as Helvetica and Times) and the Symbol font included with the Adobe PostScript 3 interpreter. Special fonts such as ZapfDingbats do not contain the Euro symbol. 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 used to access general print features, as well as, unique features of the Document Centre products. 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 modeOffset 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.

NOTE:

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

NOTE:

This job header specifies the following items:

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

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

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

Example 2 Header for Proof Print

%!PS

%%XRXbegin

%%OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PROOF_PRINT

%%OID_ATT_COPY_COUNT 6

%%XRXend

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 using 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 printing stops, reprint the same job at a lower resolution.
- Do not duplex or staple any job with media sizes A6, B6, 5 x 7" Postcard (4.5 x 6"), envelopes or any custom sized media where the page width is less than 5.5". A request to duplex or staple these media sizes is ignored.
- Do not duplex any job with transparencies, labels, envelopes or tab-stock. The duplex print request is ignored when it includes any of these media types.
- 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 from the document body.
- Use one of the following methods to specify media selection:
 - Describe the media size, color, and type 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 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 that is 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 | <pre>@PJL COMMENT OID_ATT_JOB_NAME "string";</pre> | Where string 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 only for PCL | @PJL COMMENT OID_ATT_PCL_CUSTOM_DIMENSIONS (x.0 y.0) | Where x and y are millimeters expressed as integer. |
| | <esc>101A</esc> | NOTE: You must use both the PJL comment and the escape code. The value 101 in the escape code indicates custom sized job. The PJL comment communicates the media size to use. |
| Media Size | <esc> & I int A</esc> | Where <i>int</i> is one of the following: 2 |

| Feature | Implementation | Values |
|--|---|---|
| Media Type | @PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE "value" | Where <i>value</i> is one of the following: bond, letterhead, standard, transparency, labels, drilled, recycled, preprinted, cardstock, other, system-default, envelopes, tabs, Custom1 – Custom7 NOTE: Use this command in conjunction with |
| Media Color | @PJL COMMENT OID_ATT_DEFAULT_MEDIUM_ COLOR "value" | these commands: Media Size and Media Color. Where value is one of the following: buff, blue, clear, gray, green, ivory, orange, other, pink, red, white, yellow, goldenrod, unspecified, Custom1 - Custom 7. |
| | | NOTE: Use this command in conjunction with these commands Media Size and Media Type. |
| Media Source | <esc> & I int H</esc> | Where <i>int</i> is one of the following: 0 = Auto Select 1 = Tray 1 4 = Tray 2 23 = Tray 3 (High Capacity) 24 = Tray 4 (High Capacity) 2 = Bypass Tray NOTE: See the media selection comments in the |
| Output Location – | @PJL COMMENT | Dependencies / Caveats section. Where <i>value</i> can be one of the following: |
| Options supported depend on output device. | OID_ATT_OUTPUT_BINS value | With a catch tray: OID_VAL_OUTPUT_BIN_SIDE With a 2000 Sheet Stapler/Stacker (Office |
| | | Finisher) OID_VAL_OUTPUT_BIN_TOP OID_VAL_OUTPUT_BIN_STACKER |
| | | NOTE: You cannot use the finisher stacker tray with envelopes and labels. Stapling or punching requires use of the stacker tray. If you indicate an invalid combination of commands, the output location request is ignored. |
| Stapling | @PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE; @PJL COMMENT XRXSTAPLE = value | Where <i>value</i> is one of the following: PORTRAIT LANDSCAPE DUAL |
| | | Refer to the "Single Staple Location" table later in this document, for information about staple location restrictions. |
| Hole Punching | @PJL COMMENT OID_ATT_PUNCH int; | Where <i>int</i> is one of the following: 0 = No Punch 1 = Punch each page |
| | | NOTE: You can only use the optional hole punching command with 8.5 x 11", 11 x 17", 9 x 11", A4, A3 and A4 cover size media. Use the "rotated landscape" orientation with 11 x 17" and A3 pages. |
| Collation | @PJL COMMENT OID_ATT_OUTPUT value; | Where value is one of the following: OID_VAL_OUTPUT_PAGE_COLLATE OID_VAL_OUTPUT_NO_PAGE_COLLATE |
| Resolution | @PJL SET RESOLUTION = value; | Where <i>value</i> is the following: 600 |

| Feature | Implementation | Values |
|--------------------------|--|--|
| Quantity | <esc> & I int X</esc> | Where int is: |
| | or | 1 to 9999 (1 to 999 for DC2xx devices) |
| Cimploy | @PJL SET COPIES = int <esc> & I int S</esc> | Where int is the following: |
| Simplex | <pre><esc> & i int 5</esc></pre> | Where <i>int</i> is the following: 0 = Simplex |
| Duplex | <esc> & I int S</esc> | Where <i>int</i> is one of the following: |
| Барюх | | 1 = Duplex Long Edge Binding |
| | | 2 = Duplex Short Edge Binding |
| Orientation | <esc> & I int O</esc> | Where int is one of the following: |
| | | 0 = Portrait |
| | | 1 = Landscape |
| | | 2 = Rotated Portrait 3 = Rotated Landscape |
| | | 5 = Rotated Landscape |
| | | NOTE: To ensure the correct location of |
| | | stapling or punching, use 180° rotated |
| | | landscape mode to print landscape documents |
| | | with media sizes of 11 x 17", 8.5 x13", 8.5 x 14" |
| | | or A3. |
| Force short edge feeding | @PJL COMMENT | Where <i>value</i> is one of the following: |
| | OID_ATT_FEED_EDGE value; | For portrait documents use: |
| | | OID_VAL_FEED_EDGE_SHORT_TRAILING |
| | | For landscape documents use: |
| | | OID_VAL_FEED_EDGE_SHORT_LEADING |
| | | |
| | | NOTE: The following media sizes default to |
| | | printing with the long-edge fed first: letter, letter |
| | | cover, statement, executive, 8 x 10", a4, a4 cover |
| | | and B5. It is possible to force these media sizes to print with short-edge first. |
| | | print with short-edge first. |
| Front Cover Imaged | @PJL COMMENT | Where <i>value</i> is one of the following: |
| Enable/Disable | OID_ATT_FIRSTLAST_PAGE_ IMAGED | TRUE = an imaged cover |
| | value; | or |
| | | FALSE = 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 | @PJL COMMENT | Where <i>value</i> is one of the following: |
| Tront Gover Wedia Type | OID ATT FIRST PAGE MEDIA TYPE | system-default, standard, transparency, labels, |
| | " value" | drilled, recycled, preprinted, heavyweight, other. |
| | | NOTE: Use this command in conjunction with the |
| | | these commands: Front Cover Imaged Enable |
| | | and Front Cover Media Color. |
| Front Cover Media Color | @PJL COMMENT | Where <i>value</i> is one of the following: |
| | OID_ATT_FIRST_PAGE_MEDIA_ COLOR "value" | yellow, green, buff, white, red, ivory, gray, clear, pink, goldenrod, orange, blue, other |
| | COLOR Value | NOTE: Use this command in conjunction with |
| | | these commands: Front Cover Imaged Enable |
| | | and Front Cover Media Type. |
| Front Cover Media Size | @PJL COMMENT | Where xxx and yyy are the media size |
| | OID_ATT_FIRST_PAGE_MEDIA_SIZE | expressed in mm. |
| | "xxx yyy" | NOTE: Only use this optional command when |
| | | printing Blank Front Covers. Use this command |
| | | with Front Cover Imaged Enable/Disable and its required commands, that is, Front Cover Media |
| | | Type, Front Cover Media Color, and Front Cover |
| | | Imaged Enable/Disable. |
| Front and Back Cover | @PJL COMMENT | Where <i>value</i> is one of the following: |
| Imaged/Unimaged | OID_ATT_FIRSTLAST_PAGE_ IMAGED | TRUE = an imaged front and back |
| | value | or |
| | | FALSE = a blank front and back cover |
| | | NOTE: Use this command in conjunction with |
| | | these commands: Front & Back Cover Media |
| | 1 | Type and Front & Back Cover Media Color. |

| Feature | Implementation | Values |
|-----------------------------------|----------------------------------|---|
| Front & Back Cover | @PJL COMMENT | Where <i>value</i> is one of the following: |
| Media Type | OID ATT FIRSTLAST PAGE MEDIA TY | system-default, standard, transparency, labels, |
| wedia Type | PE "value" | drilled, recycled, pre-printed, heavyweight, and |
| | I E Valde | other. |
| | | NOTE: Use this command in conjunction with the |
| | | previous and these commands: Front and Back |
| | | |
| | | Cover Imaged Enable and Front and Back Cover |
| F | OD II COMMENT | Media Color. |
| Front & Back Cover | @PJL COMMENT | Where <i>value</i> is one of the following: |
| Media Color | OID_ATT_FIRSTLAST_PAGE_MEDIA_ | yellow, green, buff, white, red, ivory, gray, clear, |
| | COLOR "value" | 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 Cove | r@PJL COMMENT | Where xxx and yyy are the media size |
| Media Size | OID_ATT_FIRSTLAST_PAGE_MEDIA_SIZ | expressed in mm. |
| | E "xxx yyy" | 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 its required |
| | | commands, 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= value | Where <i>value</i> is a number in the range: |
| inage Quality Ocicetion | GI OL OLI BLIVOITI VAIAG | 1 (lightest) to 7 (darkest). |
| Draft Mode Printing | @PJL COMMENT | Where <i>value</i> is one of the following: |
| Drait Wode Fillting | OID_ATT_PRINT_QUALITY value | |
| | OID_ATT_PRINT_QUALITY Value | OID_VAL_PRINT_QUALITY_NORMAL OID_VAL_PRINT_QUALITY_DRAFT |
| lab Tima | OD II COMMENT OID ATT IOD TYPE | |
| Job Type | @PJL COMMENT OID_ATT_JOB_TYPE | Where <i>value</i> is one of the following: |
| | value | OID_VAL_JOB_TYPE_PRINT |
| | | OID_VAL_JOB_TYPE_ PROOF_PRINT |
| Banner Sheet | @PJL COMMENT | Where <i>value</i> is one of the following: |
| | OID_ATT_START_SHEET value | OID_VAL_JOB_SHEET_FULL (On) |
| | | OID_VAL_JOB_SHEET_NONE (Off) |
| Interleave | @PJL COMMENT | Where <i>value</i> is one of the following: |
| | OID_ATT_INTERLEAVE value | OID_VAL_INTERLEAVE_NONE |
| | | OID_VAL_INTERLEAVE_BLANK |
| | | OID_VAL_INTERLEAVE_IMAGED |
| Interleave Media Color | @PJL COMMENT | Where <i>value</i> is one of the following: |
| | OID_ATT_INTERLEAVE_COLOR "value" | yellow, green, buff, white, red, ivory, gray, clear, |
| | | pink, goldenrod, orange, blue, other |
| Accounting | @PJL COMMENT | Where UserID is a value the Printer |
| . 1000 u. 1g | OID ATT ACCOUNTING INFORMATION | Administrator assigns to a user. |
| | "UserID 042AccountID"; | Where <i>AccountID</i> is a value the Printer |
| | , | Administrator assigns to the account. |
| | | NOTE: Delimit the User ID and the Account ID |
| | | by a 042. |
| Delay Print | @PJL COMMENT | Where <i>yyyy</i> is the year, <i>mm</i> is the month, <i>dd</i> is |
| Delay FIIIIL | OID ATT JOB PRINT AFTER | the date the is the hour mm is the minute of |
| | THE POINT ALLED | the date, <i>hh</i> is the hour, <i>mm</i> is the minute of |
| | | the hour and so is the second of the transfer of |
| | "yyyymmddhhmmss" | the hour, and ss is the second of that minute. |
| | | NOTE: The hours are expressed in a 24 hour |
| | | NOTE: The hours are expressed in a 24 hour clock. For example: July 29, 1999 at 3:25 PM is |
| | "yyyymmddhhmmss" | 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 | | NOTE: The hours are expressed in a 24 hour clock. For example: July 29, 1999 at 3:25 PM is expressed as: 19990729152500. See the DC Tip, Formatting Condensed Print |
| Condensed Printing | "yyyymmddhhmmss" | NOTE: The hours are expressed in a 24 hour clock. For example: July 29, 1999 at 3:25 PM is expressed as: 19990729152500. See the DC Tip, Formatting Condensed Print for Document Centre for examples and |
| Condensed Printing | "yyyymmddhhmmss" | NOTE: The hours are expressed in a 24 hour clock. For example: July 29, 1999 at 3:25 PM is expressed as: 19990729152500. See the DC Tip, Formatting Condensed Print |
| Condensed Printing Stair-stepping | "yyyymmddhhmmss" | NOTE: The hours are expressed in a 24 hour clock. For example: July 29, 1999 at 3:25 PM is expressed as: 19990729152500. See the DC Tip, Formatting Condensed Print for Document Centre for examples and |

EURO Font

For the DC 555/545/535 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 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

Basic PCL Template

This section illustrates a standard PCL 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 PCL commands and PJL, required to use these features. The next section of this document contains other examples of how to use 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

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

Section 1 (Opening Command, Required for all files)

<ESC>%-12345X@PJL JOB

Section 2 (PJL Set Commands)

@PJL SET RESOLUTION=600

@PJL SET COPIES=1

@PJL SET DENSITY=4

@PJL SET JOBOFFSET=ON

Section 3 (XRXbegin – Opening Comment Statement, Required)

@PJL COMMENT XRXbegin

Section 4 (PJL Comments)

@PJL COMMENT OID_ATT_JOB_OWNER "John Smith";

@PJL COMMENT OID ATT JOB TYPE OID VAL JOB TYPE PRINT;

@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE "Cardstock";

@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_COLOUR "Green";

@PJL COMMENT OID_ATT_PRINT_QUALITY OID_VAL_PRINT_QUALITY_DRAFT;

@PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE;

@PJL COMMENT XRXSTAPLE=PORTRAIT;

"6.15.0.128.95.124.157.20.0.1.11.4";

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

@PJL COMMENT XRXend

Section 6 (PCL Code used to invoke PCL Language)

@PJL ENTER LANGUAGE=PCL

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

[Document or Text to be printed out inserted here]

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

<ESC>%-12345X

Sample PCL Headers

<ESC>%-12345X@PJL JOB

@PJL COMMENT XRXbegin

@PJL COMMENT XRXend

<ESC>%-12345X

@PJL SET COPIES= 1

Example 1 Header for Simple Print

@PJL COMMENT OID_ATT_JOB_OWNER "John Smith";

@PJL COMMENT OID_ATT_JOB_NAME "Print Job";

NOTE:

This simple print job header specifies the Job Owner and Job Name and one copy. The quotations in the Job Owner and Job Name lines are required.

Example 2 Header for Proof Print

[Insert document or text to be printed here]

NOTE:

This proof print job header requests 6 copies.

<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

Example 3 Header for Finishing Options

NOTE:

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

<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 XRXSTAPLE=PORTRAIT;
@PJL COMMENT XRXend
<ESC>\027&I 2G
[Insert document or text to be printed here]
<ESC>%-12345X

PCL Feature Dependencies/Caveats

- All PJL commands must be in the first 4096 bytes of the job.
- To combine printer escape commands (not including PJL 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 PJL command takes precedence over a PCL command.
- Do not duplex and/or staple any job with these media sizes: A6, B6, 5 x 7" Postcard (4.5 x 6"), envelopes and any custom sized media where the page width is less than 5.5". A request to duplex or staple these media sizes is ignored.
- Do not duplex any job with transparencies, labels, envelopes or tab-stock The duplex print request is ignored if you use any of these media types.
- 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 media size of the document body to the cover.
- Use one of the methods described in the following list to specify media selection:
 - Describe the media attributes with size, color, and type 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 to 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.

Single Staple Location

The following table indicates the location of single staples for different media sizes when using the Document Centre 555/545/535 2000 Sheet Stapler/Stacker (Office Finisher).

| Media Sizes | Portrait Staple Position | Landscape Staple Position |
|--|---|--|
| Legal (8.5 x 14 inches) 8.5 x 13 inches (215 x 330 mm) Statement (8.5 x 5.5 inches) A5 (148 x 210 mm) Also the following media sizes when short-edge feed printing is | Portrait | / Landscape |
| forced: • Letter (8.5 x 11 inches) • A4 (210 x 297 mm) | | Note that you should use "Rotated Landscape" mode to ensure optimal staple location. |
| Letter (8.5 x 11 inches) 7.25 x 10.5 inches 8 x 10 inches 9 x 11 inches A4 (210 x 297 mm) Oversized A4 (223 x 297 mm) B5 (182 x 257 mm) | / Portrait | Landscape |
| , , | | Note that stapling in the top-left corner is not possible with these media sizes. |
| Ledger (11 x 17 inches) A3 (297 x 420 mm) B4 (257 x 364 mm) | Portrait | / Landscape |
| | Note that stapling in the top-left corner is not possible with these media sizes. | Note that you should use "Rotated Landscape" mode to ensure optimal staple location. |

PostScript Fonts

The following PostScript fonts are resident with the Adobe interpreter.

AdobeSansMM GillSans-Italic Palatino-Roman AdobeSerifMM GillSans-Light StempelGaramond-Bold AlbertusMT GillSans-LightItalic StempelGaramond-BoldItalic AlbertusMT-Italic Goudy StempelGaramond-Italic Goudy-Bold StempelGaramond-Roman

AlbertusMT-Light AntiqueOlive-Bold Goudy-BoldItalic Symbol AntiqueOlive-Compact Goudy-ExtraBold Tekton AntiqueOlive-Italic Times-Bold Goudy-Italic Times-BoldItalic AntiqueOlive-Roman Helvetica Times-Italic Helvetica-Bold Apple-Chancery Arial-BoldItalicMT Helvetica-BoldOblique Times-Roman Arial-BoldMT Helvetica-Condensed TimesNewRomanPS-BoldItalicMT Arial-ItalicMT Helvetica-Condensed-Bold

ArialMT Helvetica-Condensed-BoldObl AvantGarde-Book Helvetica-Condensed-Oblique

AvantGarde-BookOblique Helvetica-Narrow AvantGarde-Demi Helvetica-Narrow-Bold Helvetica-Narrow-BoldOblique AvantGarde-DemiOblique Bodoni Helvetica-Narrow-Oblique Bodoni-Bold Helvetica-Oblique Bodoni-BoldItalic HoeflerText-Black Bodoni-Italic HoeflerText-BlackItalic Bodoni-Poster HoeflerText-Italic

Bodoni-PosterCompressed HoeflerText-Ornaments Bookman-Demi HoeflerText-Regular

Bookman-Demiltalic JoannaMT Bookman-Light JoannaMT-Bold Bookman-LightItalic JoannaMT-BoldItalic JoannaMT-Italic Carta Chicago LetterGothic LetterGothic-Bold Clarendon Clarendon-Bold LetterGothic-BoldSlanted Clarendon-Light LetterGothic-Slanted

CooperBlack-Italic LubalinGraph-BookOblique Copperplate-ThirtyThreeBC LubalinGraph-Demi Copperplate-ThirtyTwoBC LubalinGraph-DemiOblique

LubalinGraph-Book

Coronet-Regular Marigold MonaLisa-Recut Courier Courier-Bold Monaco

CooperBlack

Courier-BoldOblique NewCenturySchlbk-Bold Courier-Oblique NewCenturySchlbk-BoldItalic Eurostile NewCenturySchlbk-Italic Eurostile-Bold NewCenturySchlbk-Roman

Eurostile-BoldExtendedTwo NewYork Eurostile-ExtendedTwo Optima Geneva Optima-Bold GillSans Optima-BoldItalic GillSans-Bold Optima-Italic GillSans-BoldCondensed Oxford GillSans-BoldItalic Palatino-Bold GillSans-Condensed Palatino-BoldItalic Palatino-Italic GillSans-ExtraBold

TimesNewRomanPS-BoldMT TimesNewRomanPS-ItalicMT TimesNewRomanPSMT

Univers Univers-Bold Univers-BoldExt Univers-BoldExtObl Univers-BoldOblique Univers-Condensed Univers-CondensedBold Univers-CondensedBoldOblique Univers-CondensedOblique

Univers-Extended Univers-ExtendedObl Univers-Light Univers-LightOblique Univers-Oblique Wingdings-Regular ZapfChancery-MediumItalic

ZapfDingbats

PCL Fonts

The following PCL fonts are resident with the Phoenix interpreter.

Each of these commands references a 12-point font. If you wish to use any other point size, 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, you include the alternate symbol set after the first **<ESC>** and before the second **<ESC>**. Use the line printer examples as a reference.

| Font Name | PCL Escape Command |
|--------------------------|---|
| Albertus Medium | <esc>(<esc>(s1p12v0s1b4362T</esc></esc> |
| Albertus Extra Bold | <esc>(<esc>(s1p12v0s4b4362T</esc></esc> |
| Antique Olive | <esc>(<esc>(s1p12v0s0b4168T</esc></esc> |
| Antique Olive Bold | <esc>(<esc>(s1p12v0s3b4168T</esc></esc> |
| Antique Olive Italic | <esc>(<esc>(s1p12v1s0b4168T</esc></esc> |
| Arial | <esc>(<esc>(s1p12v0s0b16602T</esc></esc> |
| Arial Bold | <esc>(<esc>(s1p12v0s3b16602T</esc></esc> |
| Arial Italic | <esc>(<esc>(s1p12v1s0b16602T</esc></esc> |
| Arial Bold Italic | <esc>(<esc>(s1p12v1s3b16602T</esc></esc> |
| CG Times | <esc>(<esc>(s1p12v0s0b4101T</esc></esc> |
| CG Times Bold | <esc>(<esc>(s1p12v0s3b4101T</esc></esc> |
| CG Times Italic | <esc>(<esc>(s1p12v1s0b4101T</esc></esc> |
| CG Times Bold Italic | <esc>(<esc>(s1p12v1s3b4101T</esc></esc> |
| CG Omega | <esc>(<esc>(s1p12v0s0b4113T</esc></esc> |
| CG Omega Bold | <esc>(<esc>(s1p12v0s3b4113T</esc></esc> |
| CG Omega Italic | <esc>(<esc>(s1p12v1s0b4113T</esc></esc> |
| CG Omega Bold Italic | <esc>(<esc>(s1p12v1s3b4113T</esc></esc> |
| Clarendon Condensed | <esc>(<esc>(s1p12v4s3b4140T</esc></esc> |
| Coronet | <esc>(<esc>(s1p12v1s0b4116T</esc></esc> |
| Courier | <esc>(<esc>(s0p12h0s0b4099T</esc></esc> |
| Courier Bold | <esc>(<esc>(s0p12h0s3b4099T</esc></esc> |
| Courier Italic | <esc>(<esc>(s0p12h1s0b4099T</esc></esc> |
| Courier Bold Italic | <esc>(<esc>(s0p12h1s3b4099T</esc></esc> |
| Garamond Antiqua | <esc>(<esc>(s1p12v0s0b4197T</esc></esc> |
| Garamond Halbfett | <esc>(<esc>(s1p12v0s3b4197T</esc></esc> |
| Garamond Kursiv | <esc>(<esc>(s1p12v1s0b4197T</esc></esc> |
| Garamond Kursiv Halbfett | <esc>(<esc>(s1p12v1s3b4197T</esc></esc> |
| Line Printer (Roman-8) | <pre><esc>(8U<esc>(s0p16.67h8.5v0s0 b0T</esc></esc></pre> |
| Line Printer (Latin-1) | <pre><esc>(0N<esc>(s0p16.67h8.5v0s0 b0T</esc></esc></pre> |
| Line Printer (PC-8) | <pre><esc>(10U<esc>(s0p16.67h8.5v0s 0b0T</esc></esc></pre> |

| Font Name | PCL Escape Command |
|-------------------------------|---|
| Line Printer (PC-8 D/N) | <esc>(11U<esc>(s0p16.67h8.5v0s 0b0T</esc></esc> |
| Line Printer (PC-850) | <pre><esc>(12U<esc>(s0p16.67h8.5v0s 0b0T</esc></esc></pre> |
| Line Printer (Legal) | <pre><esc>(1U<esc>(s0p16.67h8.5v0s0 b0T</esc></esc></pre> |
| Marigold | <esc>(<esc>(s1p12v0s0b4297T</esc></esc> |
| Times New | <esc>(<esc>(s1p12v0s0b16901T</esc></esc> |
| Times New Bold | <esc>(<esc>(s1p12v0s3b16901T</esc></esc> |
| Times New Italic | <esc>(<esc>(s1p12v1s0b16901T</esc></esc> |
| Times New Bold Italic | <esc>(<esc>(s1p12v1s3b16901T</esc></esc> |
| Symbol | <pre><esc>(19M<esc>(s1p12v0s0b166 86T</esc></esc></pre> |
| Wingdings | <esc>(579L<esc>(s1p12v0s0b314 02T</esc></esc> |
| Univers Bold | <esc>(<esc>(s1p12v0s3b4148T</esc></esc> |
| Univers Bold Italic | <esc>(<esc>(s1p12v1s3b4148T</esc></esc> |
| Univers Bold Condensed | <esc>(<esc>(s1p12v4s3b4148T</esc></esc> |
| Univers Bold Condensed Italic | <esc>(<esc>(s1p12v5s3b4148T</esc></esc> |

ASCII Conversion Table

| Hex | Dec | Alpha | EBCDIC | Description |
|-----|-----|-------|--------|---------------------------------|
| 00 | 000 | Null | 00 | NULL |
| 01 | 001 | SOH | 01 | start-of-heading |
| 02 | 002 | STX | 02 | start-of-text |
| 03 | 003 | ETX | 03 | end-of-text |
| 04 | 004 | EOT | 37 | end-of-transmission |
| 05 | 005 | ENQ | 2D | enquiry |
| 06 | 006 | ACK | 2E | acknowledge |
| 07 | 007 | BEL | 2F | bell |
| 08 | 008 | BS | 16 | backspace |
| 09 | 009 | HT | 05 | tab |
| 0A | 010 | LF | 25 | linefeed |
| 0B | 011 | VT | 0B | vertical-tab |
| 0C | 012 | FF | 0C | formfeed page |
| 0D | 013 | CR | 0D | carriage-return |
| 0E | 014 | SO | 0E | shift-out |
| 0F | 015 | SI | 0F | shift-in |
| 10 | 016 | DLE | 10 | data-link-escape |
| 11 | 017 | DC1 | 11 | XON |
| 12 | 018 | DC2 | 12 | R |
| 13 | 019 | DC3 | 13 | XOFF |
| 14 | 020 | DC4 | 3C | DC4 DCL |
| 15 | 021 | NAK | 3D | negative-acknowledge |
| 16 | 022 | SYN | 32 | synchronous-idle |
| 17 | 023 | ETB | 11 | end-of-transmission |
| 18 | 024 | CAN | 18 | cancel |
| 19 | 025 | EM | 19 | end-of-medium |
| 1A | 026 | SUB | 3F | substitute |
| 1B | 027 | ESC | 27 | escape |
| 1C | 028 | FS | 22 | field-separator |
| 1D | 029 | GS | - | group-separator group-separator |
| 1E | 030 | RS | 35 | record-separator |
| 1F | 031 | US | - | unit-separator |
| 20 | 032 | Space | 40 | space |
| 21 | 033 | ! | 5A | exclamation-point |
| 22 | 034 | " | 7F | " straight-double |
| 23 | 035 | # | 7B | # number-sign |
| 24 | 036 | \$ | 5B | \$ dollar-sign |
| 25 | 037 | % | 6C | % percent-sign |
| 26 | 038 | & | 50 | & ampersand |
| 27 | 039 | , | 7D | ' apostrophe |
| 28 | 040 | (| 4D | (left-parenthesis |
| 29 | 041 |) | 5D |) right-parenthesis |
| 2A | 042 | * | 5C | * asterisk |
| 2B | 043 | + | 4E | + addition-sign |
| 2C | 044 | , | 6B | , comma |
| 2D | 045 | - | 60 | - hyphen |
| 2E | 046 | " | 4B | . period |
| 2F | 047 | / | 61 | / right-slash |
| 30 | 048 | 0 | F0 | 0 |
| 31 | 049 | 1 | F1 | 1 |
| 32 | 050 | 2 | F2 | 2 |
| 33 | 051 | 3 | F3 | 3 |
| 34 | 052 | 4 | F4 | 4 |

| Hex | Dec | Alpha | EBCDIC | Description |
|-----|-----|---------------|--------|------------------------|
| 35 | 053 | 5 | F5 | 5 |
| 36 | 054 | 6 | F6 | 6 |
| 37 | 055 | 7 | F7 | 7 |
| 38 | 056 | 8 | F8 | 8 |
| 39 | 057 | 9 | F9 | 9 |
| 3A | 058 | : | 7A | : colon |
| 3B | 059 | • | 5E | ; semicolon |
| 3C | 060 | < | 4C | < less-than |
| 3D | 061 | > | 7E | = equals |
| 3E | 062 | = | 6E | > greater-than |
| 3F | 063 | ? | 6F | ? question-mark |
| 40 | 064 | <u>:</u> | 7C | (a) at-symbol |
| 41 | 065 | | C1 | <u> </u> |
| 42 | 066 | A | C2 | A |
| | | В | | B |
| 43 | 067 | C | C3 | C |
| 44 | 068 | D | C4 | D |
| 45 | 069 | Е | C5 | E |
| 46 | 070 | F | C6 | F |
| 47 | 071 | G | C7 | G |
| 48 | 072 | Н | C8 | Н |
| 49 | 073 | I | C9 | I |
| 4A | 074 | J | D1 | J |
| 4B | 075 | K | D2 | K |
| 4C | 076 | L | D3 | L |
| 4D | 077 | M | D4 | M |
| 4E | 078 | N | D5 | N |
| 4F | 079 | O | D6 | 0 |
| 50 | 080 | P | D7 | P |
| 51 | 081 | Q | D8 | Q |
| 52 | 082 | R | D9 | R |
| 53 | 083 | S | E2 | S |
| 54 | 084 | T | E3 | T |
| 55 | 085 | U | E4 | U |
| 56 | 086 | V | E5 | V |
| 57 | 087 | W | E6 | W |
| 58 | 088 | X | E7 | X |
| 59 | 089 | Y | E8 | Y |
| 5A | 090 | Z | E9 | Z |
| 5B | 091 | Γ | - | [left-bracket |
| 5C | 092 | \ | E0 | \ left-slash backslash |
| 5D | 093 | 1 | - |] right-bracket |
| 5E | 094 | | - | ^ caret |
| 5F | 095 | | 6D | underscore |
| 60 | 096 | , | - | `accent |
| 61 | 097 | a | 81 | a |
| 62 | 098 | b | 82 | b |
| 63 | 099 | c | 83 | c |
| 64 | 100 | d | 84 | d |
| 65 | 101 | e | 85 | e |
| 66 | 102 | f | 86 | f |
| 67 | 102 | g | 87 | |
| 68 | 103 | h | 88 | l g |
| 69 | 104 | i | 89 | i |
| 6A | 103 | ; | 91 | ; |
| 6B | | J 1, | 91 |] J |
| | 107 | <u>k</u> 1 | 92 | k |
| 6C | 108 | - | | 1 |
| 6D | 109 | m | 94 | m |

| Hex | Dec | Alpha | EBCDIC | Description |
|-----|-----|-------|--------|---------------|
| 6E | 110 | n | 95 | n |
| 6F | 111 | 0 | 96 | 0 |
| 70 | 112 | p | 97 | р |
| 71 | 113 | q | 98 | q |
| 72 | 114 | r | 99 | r |
| 73 | 115 | S | A2 | S |
| 74 | 116 | t | A3 | t |
| 75 | 117 | u | A4 | u |
| 76 | 118 | V | A5 | v |
| 77 | 119 | W | A6 | W |
| 78 | 120 | X | A7 | X |
| 79 | 121 | у | A8 | у |
| 7A | 122 | Z | A9 | z |
| 7B | 123 | { | C0 | { left-brace |
| 7C | 124 | | 6A | vertical-bar |
| 7D | 125 | } | D0 | } right-brace |
| 7E | 126 | 2 | A1 | ~ tilde |
| 7F | 127 | DEL | 07 | ^? delete |

Additional Information

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