Customer Tips

... for the user

PDL Reference Guide for the WorkCentre Pro 65/75/90

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 WorkCentre Pro 65/75/90 in environments that do not have a custom driver. These include the following environments:

- Custom DOS packages

- Other platforms (including mainframes and minis)

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 WorkCentre Pro 65/75/90.

- A PostScript table that describes the PostScript features and syntax the WorkCentre Pro 65/75/90 supports.

- A PCL table, that describes the PCL features and syntax the WorkCentre Pro 65/75/90 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 WorkCentre Pro 65/75/90.

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.

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 WorkCentre Pro 65/75/90 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.

This document applies to these Xerox products:

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

Print Features

The WorkCentre Pro 65/75/90 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) are available. For PostScript, 1200 x 1200, and 1800 x 1800 are also 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 User ID to track printer usage.
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 transparencies.

Feature	Description
Interleave Media Color	Allows you to select media color for the interleaves. Only use this feature in conjunction with ithe nterleave 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 WorkCentre Pro 65/75/90 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 *string* is a maximum of 40 characters
Job Name	%%OID_ATT_JOB_NAME "*string*"	Where *string* 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 [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 *value* is one of the following: system-default, standard, transparency, labels, drilled, recycled, pre-printed, CardStock, Bond. **NOTE:** Use this command in conjunction with the commands Media Size and Media Color.

Feature	Implementation	Values
Media Color	<</MediaColor (*string*)>> setpagedevice	Where *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7. **NOTE:** Use this command in conjunction with the commands Media Size and Media Type.

Media Source	<</MediaPosition *int*>> setpagedevice	Where *int* 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	<< /OutputType (*value*) >> setpagedevice **OR** %%OID_ATT_OUTPUT_BINS *value*	Where *value* is one of the following: TopTray MainTray Where *value* is one of the following: OID_VAL_OUTPUT_BIN_TOP or OID_VAL_OUTPUT_BIN_MAIN

Stapling	<</Staple *int* >>setpagedevice
	<</StapleDetails<</Type1/StapleLocation (string)>> >>setpagedevice
		Where *int* is one of the following:
		    0 = No Staple
		    3 = Staple when set is complete
		
		Where *string* is one of the following three values:
		SinglePortrait (The WorkCentre Pro 65/75/90 uses the staple head at the front of the WorkCentre Pro 65/75/90 - Staple Head 1).
		
		SingleLandscape (The WorkCentre Pro 65/75/90 uses the staple head at the back of the WorkCentre Pro 65/75/90 - Staple Head 2).
		
		DualLandscape

Collation	<</Collate *value*>> setpagedevice	Where *value* 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 [*x y*]>> setpagedevice
	
	<</DeviceRenderingInfo
	<< /Type 4 /ValuesPerColorComponent 4 >> /HWResolution [*x y*]>> setpagedevice
		Where *x* and *y* are one of the following:
		    1200 1200
		    1800 1800
		    600 600

Quantity	<</NumCopies *int*>>setpagedevice **OR** %% OID_ATT_COPY_COUNT *value*	Where *int* **or** *value* is 1 to 9999
Simplex	<</Duplex *value*>> setpagedevice	Where *value* is false
Duplex Long Edge Binding	<</Duplex true /Tumble *value*>> setpagedevice	Where *value* is false
Duplex Short Edge Binding	<</Duplex true /Tumble *value*>> setpagedevice	Where *value* is true

Feature	Implementation	Values
Orientation	<</PageSize[*height width*]>> setpagedevice	[height/width] 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
Front Cover Imaged Enable/Disable	%%OID_ATT_FIRST_PAGE_ IMAGED "*value*"	Where *value* 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 *value* is one of the following: system-default, standard, transparency, labels, drilled, recycled, pre-printed, CardStock, Bond. **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 *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7. **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 *xxx* and *yyy* 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_IMAGED "*value*"	Where *value* 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 *value* is one of the following: system-default, standard, transparency, labels, drilled, recycled, pre-printed, CardStock, Bond. **NOTE:** Use this command in conjunction with these commands: Front & Back Cover Imaged Enable and Front & Back Cover Media Color).

Feature	Implementation	Values
Front & Back Cover Media Color	%%OID_ATT_FIRSTLAST_PAGE_ MEDIA_COLOR "*value*";	Where *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7. **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_ME DIA_SIZE "xxx yyy"	Where xxx and yyy 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 *value*;	Where *value* is one of the following: OID_VAL_PRINT_QUALITY_NORMAL OID_VAL_PRINT_QUALITY_DRAFT
Image Quality Selection	<</PostRenderingEnhance *value* <</PostRenderingEnhanceDetails <</Type 20 /DensityControl *n*>> >> >> setpagedevice	Where *value* is one of the following: False = Bold HP type output True = Xerox High Accuracy output Where *n* applies for Xerox High Accuracy Output and is a number in the range: -3 (lightest) 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 *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7. **NOTE:** Use this command in conjunction with the command: Interleave.
Accounting	%%OID_ATT_ACCOUNTING_INFORMATI ON "*UserID*|042*AccountID*";	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.

Feature	Implementation	Values
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 *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) included in the Adobe PostScript 3 interpreter. Special fonts such as ZapfDingbats do not contain the Euro symbol. The Symbol font does include it. 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
```

Structure of a PostScript File that Includes Xerox Commands

This section illustrates the structure of a PostScript file that includes Xerox commands. The sections shown are taken from a typical PostScript file used to access 2-sided printing, single portrait stapling, and output to main tray (stacker) features of the WorkCentre Pro 65/75/90.

Note: To generate a complete PostScript print ready file that you can review and/or use to access WorkCentre Pro 65/75/90 features, see "Using WordPad to Create a PS/PCL Printing Feature File," later in this document.

Section 1 (Adobe reference command)

```
%!PS
```

Section 2 (XRXbegin - opening comment statement, required)

```
%% XRXbegin
```

Section 3 (OID commands)

```
%%OID_ATT_JOB_OWNER "ROlivier";
%%OID_ATT_JOB_NAME "Document";
%%OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PRINT;
%%OID_ATT_START_SHEET OID_VAL_JOB_SHEET_FULL;
```

Section 4 (XRXend - Closing statement for comment section, required)

```
%% XRXend
```

Section 5 (Options coded with additional postscript commands)

```
%%BeginFeature: *PKeyOutputDest OpKeyOutputStacker
     (<<) cvx exec /OutputType (Stacker) (>>) cvx exec
setpagedevice
%%EndFeature

featurebegin{
(<<) cvx exec /Staple 3 /StapleDetails (<<) cvx exec /Type 1
/StapleLocation (SinglePortrait) (>>) cvx exec (>>) cvx exec
setpagedevice

featurebegin{
%%BeginFeature: *Duplex DuplexNoTumble

     (<<) cvx exec /Duplex true /Tumble false (>>) cvx exec
setpagedevice
%%EndFeature
```

Section 6 (EOF - Closing statement for postscript file, required)

```
%%EOF
```

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 WorkCentre Pro 65/75/90 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 WorkCentre Pro 65/75/90 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 WorkCentre Pro 65/75/90 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 of 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 this reference material: *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 *string* is a maximum of 40 characters
Job Owner	@PJL COMMENT OID_ATT_JOB_OWNER "*string*";	Where *string* is a maximum of 40 characters
Custom Paper Size	@PJL COMMENT OID_ATT_PCL_CUSTOM_DIMENSIONS (*x*.0 *y*.0) <esc>101A	Where *x* and *y* are millimeters expressed as integer. **Note:** You must use both the PJL comment and the escape code. The value 101 in the escape code indicates this is a custom size job. The PJL comment communicates the media size to use.
Media Size	<esc> & ℓ *int* A	Where *int* is one of the following: 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 13 = 12 x 18 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) 211 = Postcard (4.5 x 6 inches) **NOTE:** Use this command in conjunction with the following 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.
Media Type	@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE "*value*";	Where *value* is one of the following: system-default, standard, transparency, labels, drilled, recycled, pre-printed, CardStock, Bond. **NOTE:** Use this command in conjunction with the Media Size and Media Color commands.

Feature	Implementation	Values
Media Color	@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_ COLOUR "*value*";	Where *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7. **NOTE**: Use this command in conjunction with the Media Size and Media Type commands.

Media Source	<esc> & ℓ *int* H	Where *int* is one of the following:
		    0 = Auto Select
		    1 = Tray 1
		    2 = Bypass Tray
		    4 = Tray 2
		    5 = High Capacity Feeder
		   23 = Tray 3
		   24 = Tray 4
		
		NOTE: See the media selection comments in the "Dependencies / Caveats" section.

Output Location	@PJL COMMENT OID_ATT_OUTPUT_BINS *value;*	Where *value* can be one of the following: OID_VAL_OUTPUT_BIN_TOP OID_VAL_OUTPUT_BIN_MAIN
Stapling	@PJL COMMENT OID_ATT_FINISHING OID_VAL_FINISHING_STAPLE; @PJL COMMENT XRXSTAPLE = *value;*	Where *value* is one of the following: PORTRAIT, LANDSCAPE, DUAL

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 *value* is the following: 600
Quantity	<esc> & ℓ *int* X or @PJL SET COPIES = int;	Where *int* is: 1 to 9999 (1 to 999 for DC2xx devices)
Simplex	<esc> & ℓ *int* S	Where *int* is the following: 0 = Simplex

Duplex	<esc> & ℓ *int* S	Where *int* is one of the following:
		    1 = Duplex Long Edge Binding
		    2 = Duplex Short Edge Binding

Orientation	<esc> & ℓ *int* O	Where *int* is one of the following:
		    0 = Portrait
		    1 = Landscape

Force short edge feeding	@PJL COMMENT OID_ATT_FEED_EDGE *value*;	Where *value* is one of the following: 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.

Front Cover Imaged Enable/Disable	@PJL COMMENT OID_ATT_FIRST_PAGE_ IMAGED *value*;	Where *value* 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.

Feature	Implementation	Values
Front Cover Media Type	@PJL COMMENT OID_ATT_FIRST_PAGE_MEDIA_TYPE " *value*";	Where *value* is one of the following: system-default, standard, transparency, labels, drilled, recycled, pre-printed, CardStock, Bond. **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 "*value*";	Where *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7. **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 *value;*	Where *value* is one of the following:
		  TRUE = an imaged front and back
		   or
		  FALSE = a blank front and back cover
		
		NOTE: Use this command 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_TYPE "*value*";	Where *value* is one of the following: system-default, standard, transparency, labels, drilled, recycled, pre-printed, CardStock, Bond. **NOTE:** Use this command in conjunction with these commands: Front and Back Cover Imaged Enable and Front and Back Cover Media Color.
Front & Back Cover Media Color	@PJL COMMENT OID_ATT_FIRSTLAST_PAGE_MEDIA_ COLOR "*value*";	Where *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7. **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_SIZE "*xxx yyy*";	Where *xxx* and *yyy* 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= *value;*	Where *value* is a number in the range 1 (lightest) to 7 (darkest).

Draft Mode Printing	@PJL COMMENT OID_ATT_PRINT_QUALITY *value;*	Where *value* is one of the following:
		  OID_VAL_PRINT_QUALITY_NORMAL
		  OID_VAL_PRINT_QUALITY_DRAFT

Job Type	@PJL COMMENT OID_ATT_JOB_TYPE *value;*	Where *value* is one of the following:
		  OID_VAL_JOB_TYPE_PRINT
		  OID_VAL_JOB_TYPE_ PROOF_PRINT

Feature	Implementation	Values
Banner Sheet	@PJL COMMENT 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	@PJL COMMENT OID_ATT_INTERLEAVE *value;*	Where *value* 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 *value* is one of the following: Yellow, Green, Buff, White, Red, Ivory, Gray, Clear, Pink, Goldenrod, Orange, Blue, Other, Unspecified, Custom1 – Custom7.
Accounting	@PJL COMMENT OID_ATT_ACCOUNTING_INFORMATION "*UserID*|042*AccountID*";	Where *UserID* is a value the Printer Administrator has assigned to a user. Where *AccountID* 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 *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.
Condensed Printing	<esc>&k2S	See the Customer Tip *Formatting Condensed Print for a Xerox Multifunction Device*, for examples and additional information.
Stair-stepping	<esc>k2G	Helps to resolve stair-stepping in most instances.

Euro Font

The Euro character is provided in the standard Latin of 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 WorkCentre Pro 65/75/90 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

Structure of a PCL File that Includes Xerox Commands

This section illustrates the structure of a PCL file that includes Xerox commands. The sections shown are taken from a typical PCL file used to access 2-sided printing, single portrait stapling, and output to main tray (stacker) features of the WorkCentre Pro 65/75/90.

Note: To generate a complete PCL file that you can review and/or use to access WorkCentre Pro 65/75/90 features, see "Using WordPad to Create a PS/PCL Printing Feature File," later in this document.

Section 1 (Opening command, required for all files)

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

Section 2 (Options coded with additional PCL PJL commands)

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

@Section 3 (XRXbegin – Opening comment statement, required)

```
@PJL COMMENT XRXbegin
```

Section 4 (Xerox Specific PJL commands)

```
@PJL COMMENT OID_ATT_OUTPUT OID_VAL_OUTPUT_PAGE_COLLATE;
@PJL COMMENT OID_ATT_JOB_OWNER "ROlivier";
@PJL COMMENT OID_ATT_JOB_NAME "Document";
@PJL COMMENT OID_ATT_START_SHEET OID_VAL_JOB_SHEET_FULL;
@PJL COMMENT OID_ATT_JOB_TYPE OID_VAL_JOB_TYPE_PRINT;
@PJL COMMENT XRXSTAPLE=PORTRAIT;
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_TYPE "System-Default";
@PJL COMMENT OID_ATT_DEFAULT_MEDIUM_COLOUR "White";
@PJL COMMENT OID_ATT_OUTPUT_BINS OID_VAL_OUTPUT_BIN_STACKER
@PJL COMMENT OID_ATT_PRINT_QUALITY OID_VAL_PRINT_QUALITY_NORMAL;
@PJL COMMENT OID_ATT_PUNCH 0;
```

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 (Duplex option coded with PCL escape command)

```
_&l1S
```

Section 8 (Closing command, required at end of document)

```
<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>&ℓ5X) and use letter size (<ESC>&ℓ2A) as <ESC>&ℓ5x2A.

- In case of duplicate commands, the last one requested takes precedence.

- The @PJL SET COPIES takes precedence over the PCL Escape Command (<**ESC**> & ℓ *int* X>) to set copies. In general, a PJL 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 WorkCentre Pro 65/75/90 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 WorkCentre Pro 65/75/90 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.

Using WordPad to Create a PS/PCL Printing Feature File

This section describes a simple process to create a file that contains print features you select. You may want to view the content of this file before you create a template manually. In many cases the file you create is usable to access and generate print jobs with Xerox print features.

1. Open WordPad and enter the text, **Test**.

2. Select **File > Print** and select a driver for the PDL (PostScript or PCL) you wish to use.

3. Click **Preferences**. Select the features to use in your print job. Refer to your documentation to locate the features in the driver. Click **OK** to save the settings and return to the Print dialog box.

4. Check the **Print to File** box and click **OK**. A window appears so that you can name the file. Enter **c:/test**.

5. Select **File > Open** and browse to the location of the test file you just saved. When you click on test to open it, a window questioning whether to save the current file appears. Click **No**.

6. The test file opens. Scroll through the file and take note of the structural components identified earlier in this document. If you wish, copy/paste the components as needed, or send the entire file to your printer to test the print features it invokes.

PostScript Fonts

The following PostScript fonts are resident with the Oak interpreter.

AlbertusMT
AlbertusMT-Italic
AlbertusMT-Light
AntiqueOlive-Bold
AntiqueOlive-Compact
AntiqueOlive-Italic
AntiqueOlive-Roman
Apple-Chancery
Arial-BoldItalicMT
Arial-BoldMT
Arial-ItalicMT
ArialMT
AvantGarde-Book
AvantGarde-BookOblique
AvantGarde-Demi
AvantGarde-Demi Oblique
Bodoni
Bodoni-Bold
Bodoni-BoldItalic
Bodoni-Italic
Bodoni-Poster
Bodoni-PosterCompressed
Bookman-Demi
Bookman-DemiItalic
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
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-Bold
Helvetica-BoldOblique
Helvetica-Condensed
Helvetica-Condensed-Bold
Helvetica-Condensed-BoldObl
Helvetica-Condensed-Oblique
Helvetica-Narrow
Helvetica-Narrow-Bold
Helvetica-Narrow-BoldOblique
Helvetica-Narrow-Oblique
Helvetica-Oblique
HoeflerText-Black
HoeflerText-BlackItalic
HoeflerText-Italic
HoeflerText-Ornaments
HoeflerText-Regular
JoannaMT
JoannaMT-Bold
JoannaMT-BoldItalic
JoannaMT-Italic
LetterGothic
LetterGothic-Bold
LetterGothic-BoldSlanted
LetterGothic-Slanted
LubalinGraph-Book
LubalinGraph-BookOblique

LubalinGraph-Demi
LubalinGraph-DemiOblique
Marigold
Monaco
MonaLisa-Recut
New York
NewCenturySchlbk-Bold
NewCenturySchlbk-BoldItalic
NewCenturySchlbk-Italic
NewCenturySchlbk-Roman
Optima
Optima-Bold
Optima-BoldItalic
Optima-Italic
Oxford
Palatino-Bold

Palatino-BoldItalic
Palatino-Italic
Palatino-Roman
StempelGaramond-Bold
StempelGaramond-BoldItalic
StempelGaramond-Italic
StempelGaramond-Roman
Symbol
Tekton
Times-Bold
Times-BoldItalic
Times-Italic
TimesNewRomanPS-BoldItalicMT
TimesNewRomanPS-BoldMT
TimesNewRomanPS-ItalicMT
TimesNewRomanPSMT
Times-Roman
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 Oak interpreter.

Each of these commands references either a 12-point font, or a 10-pitch font. If you wish to use any other point size, simply change the 12v to the desired size (.25 - 999.75), to use a different pitch change the 10h to the desired size (> 0.00).

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
CG Times	<Esc>(<Esc>(s1p12v0s0b4l0lT
CG Times Italic	<Esc>(<Esc>(s1p12v1s0b4l01T
CG Times Bold	<Esc>(<Esc>(s1p12v1s3b4l0lT
CG Times Bold Italic	<Esc>(<Esc>(s1p12vls3b4l01T
Univers Medium	<Esc>(<Esc>(s1p12v0s0b4148T
Univers Medium Italic	<Esc>(<Esc>(s1p12vls0b4l48T
Univers Bold	<Esc>(<Esc>(s1p12v0s3b4148T
Univers Bold Italic	<Esc>(<Esc>(s1p12v1s3b4148T
Univers Medium Condensed	<Esc>(<Esc>(s1p12v4s0b4148T
Univers Medium Condensed Italic	<Esc>(<Esc>(s1p12v5s0b4148T
Univers Bold Condensed	<Esc>(<Esc>(s1p12v4s3b4148T
Univers Bold Condensed Italic	<Esc>(<Esc>(s1p12v5s3b4148T
Antique Olive	<Esc>(<Esc>(s1p12v0s0b4163T
Antique Olive Italic	<Esc>(<Esc>(s1p12v1s0b4l68T
Antique Olive Bold	<Esc>(<Esc>(s1p12v0s3b4168T
CG Omega	<Esc>(<Esc>(s1p12v0s0b4113T
CG Omega Italic	<Esc>(<Esc>(s1p12v1s0b4113T
CG Omega Bold	<Esc>(<Esc>(s1p12v0s3b4113T
CG Omega Bold Italic	<Esc>(<Esc>(s1p12v1s3b4113T
Garamond Antiqua	<Esc>(<Esc>(s1p12v0s0b4197T
Garamond Kursiv	<Esc>(<Esc>(s1p12v1s0b4197T
Garamond Halbfett	<Esc>(<Esc>(s1p12v0s3b4197T
Garamond Kursiv Halbfett	<Esc>(<Esc>(s1p12v1s3b4197T
Courier	<Esc>(<Esc>(s0p10h0s0b4099T
Courier Italic	<Esc>(<Esc>(s0p10h1s0b4099T
Courier Bold	<ESC>(<Esc>(s0p10h0s3b4099T
Courier Bold Italic	<Esc>(<Esc>(s0p10h1s3b4099T
Letter Gothic	<Esc>(<Esc>(s0p10h0s0b4102T
Letter Gothic Bold	<Esc>(<Esc>(s0p10h0s3b4102T
Letter Gothic Italic	<Esc>(<Esc>(s0p10h1s0b4102T
ALbertus Medium	<Esc>(<Esc>(s1p12v0s1b43621
ALbertus Extra BoLd	<Esc>(<Esc>(s1p12v0s4b4362T
Claredon Condensed	<Esc>(<Esc>(s1p12v4s3b4140T
Coronet	<Esc>(<Esc>(s1p12v1s0b4116T
Marigold	<Esc>(<Esc>(s1p12v0s0b4297T
Arial	<Esc>(<Esc>(s1p12v0s0b16602T
Arial ItaLic	<Esc>(<Esc>(s1p12v1s0b166O2T
Arial Bold	<Esc>(<Esc>(s1p12v0s3b16602T
Arial Bold Italic	<Esc>(<Esc>(s1p12v1s3b16602T
Times New Roman	<Esc>(<Esc>(s1pc12v0s0b1690lT
Times New Roman Italic	<Esc>(<Esc>(s1p12v1s0bl6901T

Times New Roman Bold	<Esc>(<Esc>(s1p12v0s3b16901T
Times New Roman Bold Italic	<Esc>(<Esc>(s1p12v1s3b16901T
Symbol	<Esc>(<Esc>(s1p12v0s0b16686T
Wingdings	<Esc>(<Esc>(s1p12v0s0b6826T
ITC AvantGuard Black	<Esc>(<Esc>(s1p12v0s0b24607T
ITC AvantGuard Black Oblique	<Esc>(<Esc>(s1p12v1s0b24607T
ITC AvantGuard DemiBold	<Esc>(<Esc>(s1p12v0s2b24607T
ITC AvantGuand DemiBold Oblique	<Esc>(<Esc>(s1p12v1s2b24607T
ITC Bookman Light	<Esc>(<Esc>(s1p12v0s-3b24623T
ITC Bookman Light Italic	<Esc>(<Esc>(s1p12v1s-3b24623T
ITC Bookman DemiBold	<Esc>(<Esc>(s1p12v0s2b24623T
Bookman DemiBold Italic	<Esc>(<Esc>(s1p12v1s2b24623T
Courier PS	<Esc>(<Esc>(s0p10h0s0b24579T
Courier PS Oblique	<Esc>(<Esc>(s0p10h1s0b24579T
Courier PS Bold	<Esc>(<Esc>(s0p10h0s3b24579T
Courier PS Bold Oblique	<Esc>(<Esc>(s0p10h1s3b24579T
Helvetica	<Esc>(<Esc>(s1p12v0s0b24580T
Helvetica Oblique	<Esc>(<Esc>(s1p12v1s0b24580T
Helvetica Bold	<Esc>(<Esc>(s1p12v0s3b24580T
Helvetica Bold Oblique	<Esc>(<Esc>(s1p12v1s3b24580T
Helvetica Narrow	<Esc>(<Esc>(s1p12v4s0b24580T
Helvetica Narrow Oblique	<Esc>(<Esc>(s1p12v5s0b24580T
HeLvetica Narrow Bold	<Esc>(<Esc>(s1p12v4s3b24580T
HeLvetica Narrow BoLd Oblique	<Esc>(<Esc>(s1p12v5s3b24580T
New Century SchooLbook Roman	<Esc>(<Esc>(s1p12v0s0b24703T
New Century SchooLbook Italic	<Esc>'(<Esc>(s1p12v1s0b24703T
New Century Schoolbook Bold	<Esc>(<Esc>(s1pu12v0s3b24703T
New Century Schoolbook BoLd Italic	<Esc>(<Esc>(s1p12v1s3b24703T
Palatino Roman	<Esc>(<Esc>(s1p12v0s0b24591T
Palatino Italic	<Esc>(<Esc>(s1p12vw1sOb24591T
Palatino Bold	<Esc>(<Esc>(s1p12vOs3b24591
Palatino Bold Italic	<Esc>(<Esc>(s1p12v1s3b24591T
Symbol PS	<Esc>(<Esc>(s1p12v0s0b4S3S8T
Times Roman	<Esc>(<Esc>(s1p12v0s0b25093T
Times Roman Italic	<Esc>(<Esc>(s1p12v1s0b25093T
Times Roman Bold	<Esc>(<Esc>(s1p12v0s3b25093T
Times Bold Italic	<Esc>(<Esc>(s1p12v1s3b25093T
Zapf Chancery Medium Italic	<Esc>(<Esc>(s1p12v1s0b45099T
Zapf Dingbats	<Esc>(<Esc>(s1p12v0s0b4Sl0IT
Line Printer (Roman-8)	<Esc>(8U<Esc>(s0p16.67h8.48v0s0b0T
Line Printer (PC-8)	<Esc>(I0U<Esc> (s0pl6.67h8.48v0s0b0T
Line Printer (PC-8 D/N)	<Esc>(11U<Esc>(s0p16.67h8.48v0s0b0T
Line Printer (PC-850)	<Esc>(12U<Esc>(s0p16.67h8.48v0s0b0T
Line Printer (Latin-1)	<Esc>(0N<Esc>(s0p16.67h8.48v0s0b0T
Line Printer (Lgeal)	<Esc>(1U<Esc>(s0p16.67h8.48v0s0b0
Line Printer 16 (Roman-8)	<Esc>(8U<Esc>(s0p16.67h8.50v0s0b0T
Line Printer 16 (PC-8)	<Esc>(1OU<Esc>(s0p16.67h8.50v0s0b0T
Line Printer 16 (PC-8 D/N)	<Esc>(11U<Esc>(s0p16.67h8.50v0s0b0T
Line Printer 16 (PC-850)	<Esc>(12U<Esc>(s0p16.67h8.50v0s0b0T
Line Printer 16 (Latin-1)	<Esc>(0N<Esc>(s0p16.67h8.50v0s0b0T
Line Printer 16 (Legal)	<Esc>(1U<Esc>(s0p16.67h8.50v0s0b0T

ASCII Conversion Table

Dec	Hex	ASCII / Description	Dec	Hex	ASCII / Description	Dec	Hex	ASCII / Description
000	00	NUL / NULL	042	2A	* asterisk	087	57	W
001	01	SOH / start-of-heading	043	2B	+ addition-sign	088	58	X
002	02	STX / start-of-text	044	2C	, comma	089	59	Y
003	03	ETX / end-of-text	045	2D	- hyphen	090	5A	Z
004	04	EOT / end-of-transmission	046	2E	. period	091	5B	[left-bracket
			047	2F	/ right-slash	092	5C	\ left-slash backslash
005	05	ENQ / enquiry	048	30	0	093	5D	] right-bracket
006	06	ACK / acknowledge	049	31	1	094	5E	^ caret
007	07	BEL / bell	050	32	2	095	5F	_ underscore
008	08	BS / backspace	051	33	3	096	60	` accent
009	09	HT / tab	052	34	4	097	61	a
010	0A	LF / linefeed	053	35	5	098	62	b
011	0B	VT / vertical-tab	054	36	6	099	63	c
012	0C	FF / formfeed page	055	37	7	100	64	d
013	0D	CR / carriage-return	056	38	8	101	65	e
014	0E	SO / shift-out	057	39	9	102	66	f
015	0F	SI / shift-in	058	3A	: colon	103	67	g
016	10	DLE / data-link-escape	059	3B	; semicolon	104	68	h
017	11	DC1 / XON	060	3C	< less-than	105	69	i
018	12	DC2 / R	061	3D	= equals	106	6A	j
019	13	DC3 / XOFF	062	3E	> greater-than	107	6B	k
020	14	DC4 / DC4 DCL	063	3F	? question-mark	108	6C	l
021	15	NAK / negative-acknowledge	064	40	@ at-symbol	109	6D	m
			065	41	A	110	6E	n
022	16	SYN / synchronous-idle	066	42	B	111	6F	o
023	17	ETB / end-of-transmission	067	43	C	112	70	p
			068	44	D	113	71	q
024	18	CAN / cancel	069	45	E	114	72	r
025	19	EM / end-of-medium	070	46	F	115	73	s
026	1A	SUB / substitute	071	47	G	116	74	t
027	1B	ESC / escape	072	48	H	117	75	u
028	1C	FS / field-separator	073	49	I	118	76	v
029	1D	GS / group-separator	074	4A	J	119	77	w
030	1E	RS / record-separator	075	4B	K	120	78	x
031	1F	US / unit-separator	076	4C	L	121	79	y
032	20	space	077	4D	M	122	7A	z
033	21	! / exclamation-point	078	4E	N	123	7B	{ left-brace
034	22	" straight-double	079	4F	O	124	7C	| vertical-bar
035	23	# number-sign	080	50	P	125	7D	} right-brace
036	24	$ dollar-sign	081	51	Q	126	7E	~ tilde
037	25	% percent-sign	082	52	R	127	7F	^? delete
038	26	& ampersand	083	53	S			
039	27	' apostrophe	084	54	T			
040	28	(left-parenthesis	085	55	U			
041	29	) right-parenthesis	086	56	V			

Additional Information

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

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

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

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