



IBM Page Printer Formatting Aid: Command Quick Reference



IBM Page Printer Formatting Aid: Command Quick Reference

Note!

Before using this information and the product it supports, read the information in "Notices" on page 55.

Ninth Edition (December 2003)

| This edition applies to Version 4 Release 5 (V4R5) of Page Printer Formatting Aid (PPFA) for iSeries (program
| number 5798-AF3), Version 1 Release 1 of PPFA for System/390 (program number 5688-190), Version 3 Release 2
| of PPFA for Infoprint Manager for AIX (program number 5765-E42), Version 1 Release 1 of PPFA for Infoprint
| Manager for Windows NT and Windows 2000 (program number 5839-I27), and to all subsequent releases of this
| product until otherwise indicated in new releases or technical newsletters, and replaces the following publication: *IBM*
| *Page Printer Formatting Aid: Command Quick Reference*, (G544-3701-07).

See the Summary of Changes for the changes made to this publication. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

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Summary of Changes

This publication contains additions and changes to information previously presented in *IBM Page Printer Formatting Aid: Command Quick Reference*, G544-3701-07.

The following information is new or updated:

- Chapter 2, “Form Definition Commands,” on page 9 has the following changes:
 - Support for the new **form-size** parameters (**XMSIZE** and **YMSIZE**) has been added to “COPYGROUP Command” on page 10.
 - Support for the new **COMPATPGP1** and **form-size** parameters has been added to “FORMDEF Command” on page 12.
- Chapter 3, “Page Definition Commands (Traditional),” on page 17 has the following changes:
 - Support for the new “DOFONT Command (Traditional)” on page 20.
 - Support for the new “EXTREF Command (Traditional)” on page 20.
 - Support for two new barcodes (2DQRCODE and CODE93) has been added to “FIELD Command (Traditional)” on page 21.
 - Support for new values to the **OBXNAME**, **OB2RESOURCE**, and **OB2XNAME** parameters has been added to “OBJECT Command (Traditional)” on page 24.
 - Support for new **PreRip** parameters has been added to “OBJECT Command (Traditional)” on page 24.
 - Support for new **PreRip** parameters has been added to “OVERLAY Command (Traditional)” on page 25.
 - Support for new **SOSIFONTS** parameter has been added to “PAGEDEF Command (Traditional)” on page 25.
 - Support for new **SOSIFONTS** parameter has been added to “PAGEFORMAT Command (Traditional)” on page 25.
- Chapter 4, “Page Definition Command Reference (Record Formatting and XML),” on page 29 has the following changes:
 - Support for new **PAGE** parameter has been added to “CONDITION Command (Record Format and XML)” on page 31.
 - Support for the new “EXTREF Command (Record Format and XML)” on page 38.
 - Support for two new barcodes (2DQRCODE and CODE93) has been added to “FIELD Command (Record Format)” on page 39.
 - Support for two new barcodes (2DQRCODE and CODE93) has been added to “FIELD Command (XML)” on page 42.
 - Support for new values to the **OBXNAME**, **OB2RESOURCE**, and **OB2XNAME** parameters has been added to “OBJECT Command (Record Format and XML)” on page 47.
 - Support for new **PreRip** parameters has been added to “OBJECT Command (Record Format and XML)” on page 47.
 - Support for new **PreRip** parameters has been added to “OVERLAY Command (Record Format and XML)” on page 48.
 - Support for new **SOSIFONTS** parameter has been added to “PAGEDEF Command (Record Format and XML)” on page 49.
 - Support for new **SOSIFONTS** parameter has been added to “PAGEFORMAT Command (Record Format and XML)” on page 50.

Chapter 1. PPFA General Information

This quick reference is intended to provide you with general information about Page Printer Formatting Aid (PPFA). It contains information on program invocation, symbolic information, syntax rules, and the command syntax for the PPFA commands.

PPFA is an IBM licensed program (Program Number 5688-190) that enables users of IBM's Advanced Function Presentation (AFP) products to create their own formatting resources, called form definitions and page definitions.

PPFA is a cross system product that operates under:

- AIX (Advanced Interactive Executive)
- MVS (Multiple Virtual Storage)
- OS/400 (Operating System 400)
- VM (Virtual Machine)
- VSE (Virtual Storage Extended)

For system dependencies, see *PPFA: User's Guide* (S544-5284).

Reading Syntax Diagrams

The syntax for PPFA commands is shown using graphic notation. To read the diagrams, move from left to right and top to bottom, following the main path line.

Style Rules:

Syntax diagrams use the following style rules to show how to enter commands and parameters:

- A word in uppercase must be spelled exactly as shown, but may be coded in any case. For example in coding, FORMDEF or FormDef or formdef are equivalent.
- A word in all italic, lowercase letters shows a parameter that you can replace. For example:
name
shows that you replace *name* with a resource name that is retained in the library.
- A parameter above the line shows the default parameter. For example, **SBCS** is the default parameter in the syntax diagram for the **FONT** command:



Symbols:

Syntax diagrams use symbols to help you follow the flow of information they communicate:

- Statements begin with:
➤
- and end with:
➡
- Statements longer than one line continue to a second line with:
➔
- Where they resume with:
➤

General Information

Required Parameters:

A parameter that you must include is displayed on the main path line. For example, the syntax diagram for the **SEGMENT** command:

►►—SEGMENT—*name*—;—►►

shows that you must follow **SEGMENT** with its required parameter.

If there are two or more required parameters from which to choose, the parameters are shown with the first choice on the main path line and the other choices on branch lines under it. For example, the partial syntax diagram for the **DIRECTION** Command:

►►—DIRECTION—

ACROSS
DOWN
BACK
UP

—►►

shows that you must type the command in any of the following ways:

- **DIRECTION ACROSS**
- **DIRECTION DOWN**
- **DIRECTION BACK**
- **DIRECTION UP**

Optional Parameters:

Parameters that you can include with a command are displayed on the branch line below the main path line. For example, the partial syntax diagram for the **COPYGROUP** command:

►►—COPYGROUP—*name*—

CUTSHEET - NO
CUTSHEET - YES

—►►

shows you can type the command in one of these ways:

- **COPYGROUP** *name1* **CUTSHEET YES** ;
- **COPYGROUP** *name1* **CUTSHEET NO** ;

Branch lines can include branch lines of their own. An example of this is the partial syntax diagram for the **SUBGROUP** command with the optional **BIN** parameter:

►►—SUBGROUP—

BIN—1			
BIN— <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td><i>n</i></td></tr><tr><td>MANUAL</td></tr><tr><td>ENVELOPE</td></tr></table>	<i>n</i>	MANUAL	ENVELOPE
<i>n</i>			
MANUAL			
ENVELOPE			

—►►

Repeating Parameters:

An arrow on a line above a parameter means that you can either repeat the parameter or enter more than one of the listed parameters. An example of this is the partial syntax diagram for the **SUPPRESSION** subcommand in the **SUBGROUP** Command:

►►—SUPPRESSION—

<i>name</i>

—►►

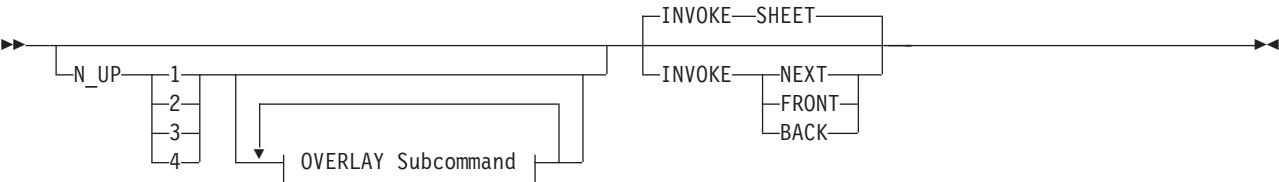
The arrow above *name* means you can include one or more field name parameters with the **SUPPRESSION** command.

Fragment Elements

A syntax diagram can contain a section that either has too many items or groups to fit in the diagram or is used more than once. This section can be presented as a “fragment”, and given a label that corresponds to the section within the main diagram. An example of this is the syntax diagram for the **FORMDEF** subcommand with its fragmented **OVERLAY** subcommand shown below:

Note: This **FORMDEF** diagram example also displays examples of some of the parameters mentioned above.

FORMDEF



OVERLAY Subcommand:

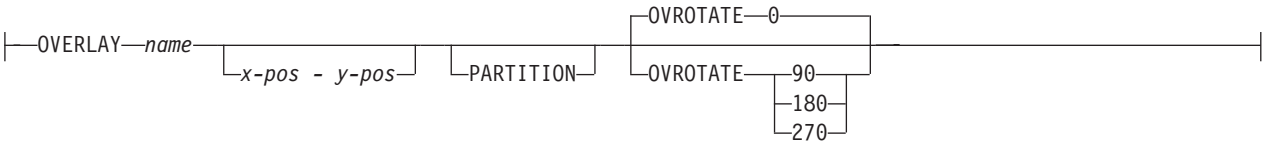


Diagram Shorthand

These terms are used in the command definitions:

- x-pos* Term means a horizontal position using a numeric number followed optionally by a unit. For the available units of measurement, see page Table 1 on page 4.
- y-pos* Term means a vertical position using a numeric number followed optionally by a unit. For the available units of measurement, see page Table 1 on page 4.

PPFA Character Set

Alphabetical Characters

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
@ \$

Numeric Characters

0 1 2 3 4 5 6 7 8 9

Special Characters

. (+ *) - % ' = ; / &

General Information

Delimiters

/* */	begin and end comment
;	end command
' '	begin and end for SBCS literals
'SO SI'	begin and end for DBCS literals

Units of Measurement

Table 1. Units of Measurement

IN	inches
MM	millimeters
CM	centimeters
POINTS	points
PELS	picture elements (normally, there are 240 PELS to the inch)
LPI	lines-per-inch (vertical only)
CPI	characters-per-inch (horizontal only)

PPFA Names

Number of alphanumeric characters in PPFA names:

Table 2. Character Length for PPFA Names

Type of Name	Number of Characters Allowed
Form Definition	
COPYGROUP	1–8
FORMDEF	1–6
OVERLAY (local name)	1–16
OVERLAY (user-access name)	1–6
SUPPRESSION	1–8
Page Definition	
BARCODE	1–8
CONDITION	1–8
DEFINE COLOR	1–10
FONT (local name)	1–16
FONT (user-access name)	1–6
OBJECT (local-name)	1–16
OBJECT (external name z/OS file system)	1–8
OBJECT (external name)2	1–250
Secondary OBJECT (internal name)2	1–250
Secondary OBJECT (external name)2	1–250
OVERLAY	1–6
PAGEDEF	1–6
PAGEFORMAT	1–8
SEGMENT	1–6

Table 2. Character Length for PPFA Names (continued)

Type of Name	Number of Characters Allowed
Notes: <ol style="list-style-type: none"> The <i>name</i> can consist of the characters shown under the “Alphabetic Characters” and the “Numeric Characters” in “PPFA Character Set” on page 3. A <i>local name</i> identifies a font or an overlay only within a set of PPFA commands. A <i>user-access</i> name is the name the operating system uses to find the data. PPFA adds the appropriate prefix to the user-access name (for example, F1 for form definitions, P1 for page definitions, and O1 for overlays) to match the library resource name. This name is further restricted to 250 bytes. For data type UTF-16 this is a maximum of 125 characters or less if surrogate characters are required. 	

Non-OCA Object Types

The following is a listing of the Non-OCA Object Types supported by IOB type names, component identifiers, and a description of OBID object types.

Table 3. Non—OCA Objects supported by IOB.

Type-Name	Component-id	Description of OBID Object Type
EPS	13	Encapsulated PostScript
TIFF	14	Tag Image File Format
WINDIB	17	Device Dependent Bit Map [DIB], Windows Version
OS2DIB	18	Device Dependent Bit Map [DIB], OS2 PM Version
PCX	19	Paintbrush Picture File Format
GIF	22	Graphics Interchange Format
JFIF	23	JPEG file Interchange Format
PCLPO	34	PCL Page Object
PDFSPO	25	PDF Single Page Object
EPSTR	48	EPS with Transparency
PDFSPOTR	49	PDF Single Page Object with Transparency

Table 4. Object Types that can be referenced as Secondary Resources

Type-Name	Component-id	Description of OID Type-Name
PDFRO	26	PDF Resource Object (new)
RESCLRPRO	46	Resident Color Profile Resource Object
IOCAFS45RO	47	UICA FS45 Resource Object Tile (new)

PPFA Keywords

A keyword is a word in PPFA that must be entered exactly as shown. Keywords cannot be used as second names for commands (like **FONT** and **OVERLAY**) which can have 2 positional parameters as names. This is less restrictive than prior versions of PPFA.

Note: When keywords are longer than five characters, they may be abbreviated to the first five characters. The shorthand form of the keyword must also be avoided as a name. For example, since **PAGEH** and **CONDI** are 5 character forms for **PAGEHEADER** and **CONDITION**, they cannot be used as second names.

ABSOLUTE	CUTSHEET	HRIFONT	OCA	REPEAT
ACROSS	CVERROR	INVOKE	OFFSET	REPLACE
ADJUST	DBCS	JOG	OPCOUNT	RES
AFIELD	DEFINE	LAYOUT	OPERATION	RESOLUTION
ALIGN	DELIMITER	LENGTH	OPOFFSET	RGB
AXIS1	DIRECTION	LINE	OPPOS	ROTATION
AXIS2	DOWN	LINEONE	OTHERWISE	SBCS
BACK	DOFONT	LINESP	OUTBIN	SCOPE
BARCODE	DRAWGRAPHIC	LINETYPE	OVERLAY	SEGMENT
BCCOLOR	DUPLEX	LINEWT	OVROTATE	SETUNITS
BCXPARMS	ELLIPSE	MEDIUM	PAGECOUNT	SOSIFONT
BIN	ENDGRAPHIC	METRICTECHNOLOGY	PAGEDEF	SPACE_THEN_PRINT
BINERROR	ENDSPACE	METTECH	PAGEFORMAT	SSASTERISK
BODY	ENDSUBPAGE	MOD	PAGEHEADER	START
BOTH	EXTREF	MODWIDTH	PAGENUM	SUBGROUP
BOX	FIELD	N	PAGETRAILER	SUPPBLANKS
BOXSIZE	FILL	N_UP	PARTITION	SUPPRESSION
CHANNEL	FINISH	NEWPAGE	PLACE	TEXT
CIELAB	FLASH	NOGROUP	POSITION	TEXTERROR
CIRCLE	FLDNUM	NOPRELOAD	PRELOAD	TO
CLRTRAP	FONT	NORASTER	PRESENT	TONERSAVER
CMYK	FONTFID	OBID	PRINTDATA	TRCREf
COLOR	FORMDEF	OBJECT	PRINTLINE	TYPE
COLORVALUERR	FRONT	OBKEEP	PROCESSING	UDTYPE
COMMENT	GRAPHID	OBNOKEEP	QUALITY	WHEN
CONDITION	GRID	OBTYPE	RADIUS	WIDTH
CONSTANT	GROUP	OBXNAME	RASTER	XATTR
COPIES	GRPHEADER	OB2ID	RATIO	XLAYOUT
COPY	HEIGHT	OB2RESOURCE	RECID	XMSIZE
COPYGROUP	HILITE	OB2TYPE	REFERENCE	XSPACE
CP	HRI	OB2XNAME	RELATIVE	YMSIZE
CS				

PPFA Media Names

This table lists the PPFA media names, media types, and component identifiers.

Table 5. Registered Media Types Sorted By Media Name

Media Name	Media Type	Component ID
BSNS ENV	North American business envelope	143
COM 10 ENV	Com10 envelope (9.5 x 4.125 in)	75
C5 ENV	C5 envelope (229 x 110 mm)	79
DL ENV	DL envelope (220 x 110 mm)	77
EXEC	North American executive (7.25 x 10.5 in)	65
INDEX CD	Index Card	150
ISO A3	ISO A3 white (297 x 420 mm)	10
ISO A3 CO	ISO A3 colored	11
ISO A4	ISO A4 white (210 x 297 mm)	0
ISO A4 CO	ISO A4 colored	1
ISO A4 TAB	ISO A4 tab (225 x 297 mm)	7
ISO A4 THD	ISO 1/3 A4	5
ISO A4 TR	ISO A4 transparent	2
ISO A5	ISO A5 white (148.5 x 210 mm)	20
ISO A5 CO	ISO A5 colored	21
ISO A6 PC	ISO A6 Postcard	152
ISO B4	ISO B4 white (257 x 364 mm)	30
ISO B4 CO	ISO B4 colored	31
ISO B4 ENV	ISO B4 envelope	83
ISO B5	ISO B5 white (176 x 250 mm)	40
ISO B5 CO	ISO B5 colored	41
ISO B5 ENV	ISO B5 envelope	73
ISO C4 ENV	ISO C4 envelope	93
ISO C5 ENV	ISO C5 envelope	103
ISO LNG ENV	ISO long envelope	113
JIS B4	JIS B4 (257 x 364 mm)	42
JIS B5	JIS B5 (182 x 257 mm)	43
JP PC	Japan postcard (Hagaki) (100 x 148 mm)	81
JP PC ENV	Japan postcard envelope (200 x 150 mm)	80
LEDGER	North American ledger (11 x 17 in)	67
LEGAL	North American legal white (8.5 x 14 in)	60
LEGAL CO	North American legal colored	61
LEGAL TAB	Legal tab (9 x 14 in)	146
LEGAL 13	North American legal 13 (Folio) (8.5 x 14 in)	63
LETTER	North American letter white (8.5 x 11 in)	50
LETTER CO	North American letter colored	51
LETTER TAB	Letter tab (9 x 11 in)	145

General Information

Table 5. Registered Media Types Sorted By Media Name (continued)

Media Name	Media Type	Component ID
LETTER TR	North American letter transparent	52
MON ENV	Monarch envelope (7.5 x 3.875 in)	76
RA3	Oversize A3 (16.923 x 12.007 in)	153
RA4	Oversize A4 (8.465 x 12.007 in)	162
STATEMNT	North American statement (5.5 x 8.5 in)	69
US PC	US Postcard	151
9x12 ENV	North American 9 x 12 envelope	133
10x13 ENV	North American 10 x 13 envelope	123
9x12 MAN	Manual (9 x 12 in)	147
8x10 MED	Media (8 x 10 in)	160
8x10.5 MED	Media (8 x 10.5 in)	148
8.5x10 MED	Media (8.5 x 10 in)	157
9x14 MED	Media (9 x 14 in)	149
12x18 MED	Media (12 x 18 in)	155
14x17 MED	Media (14 x 17 in)	154
14x18 MED	Media (14 x 18 in)	156

Chapter 2. Form Definition Commands

A PPFA command stream can contain form-definition commands. A *form definition* specifies how the printer controls the processing of the physical sheets of paper. In a form definition, you can specify modifications that distinguish formatting one print job from another when both are derived from the same data. Form definitions are used for all PSF print files regardless of data type.

This section includes:

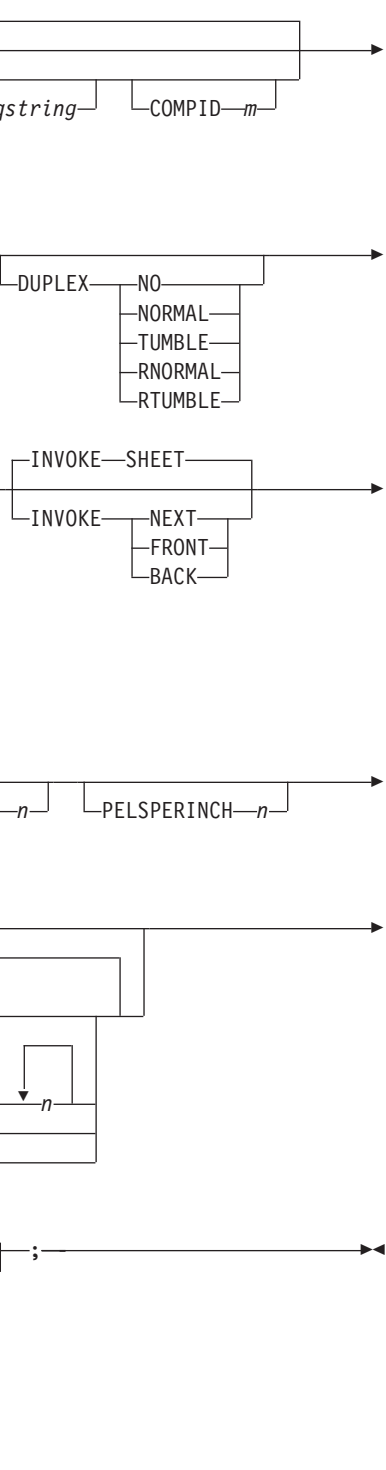
- Sequence of commands for form definitions
- Commands listed alphabetically
- Syntax diagram for each command.

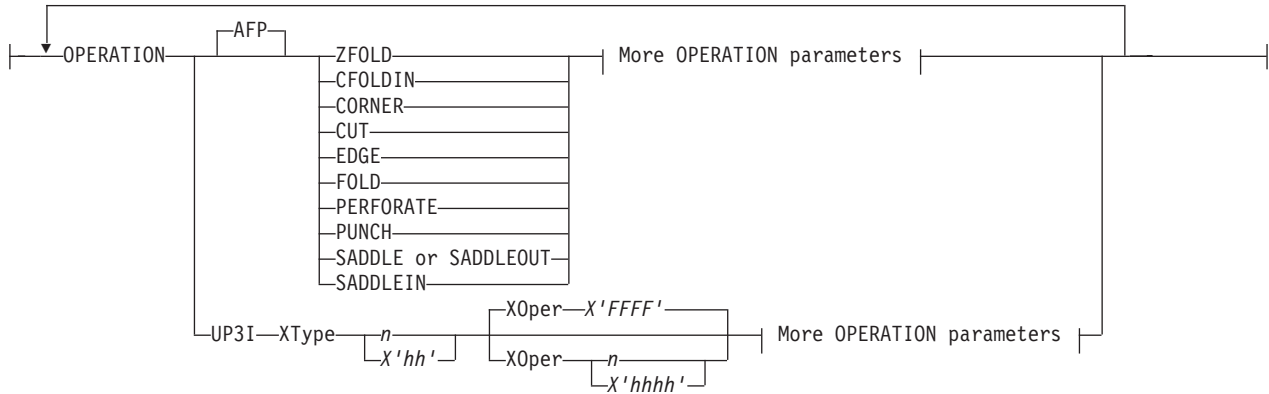
Sequence of Commands for Form Definition

This section lists the required order of form definition commands.

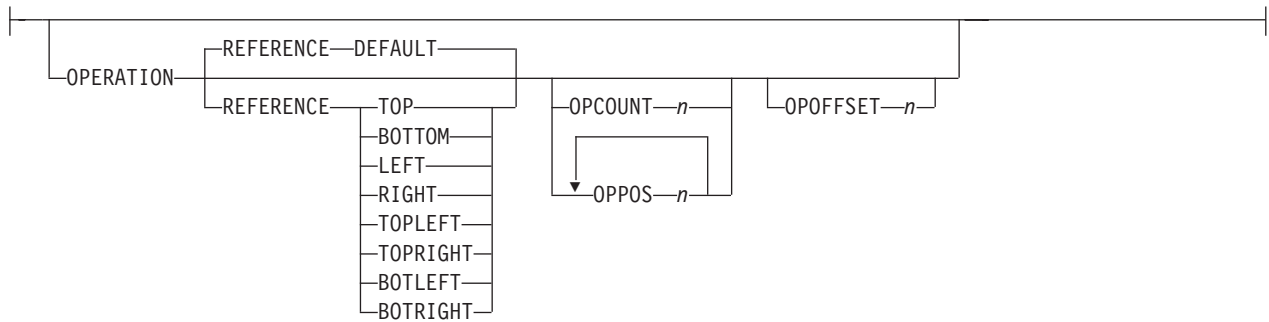
```
[SETUNITS ]  
FORMDEF  
[SUPPRESSION ...]  
[COPYGROUP ]  
    [OVERLAY ...]  
    [SUBGROUP ...]  
[COPYGROUP ]  
    [OVERLAY ...]  
    [SUBGROUP ...]
```

Note: If the form definition has only one copy group, the **COPYGROUP** command can be omitted. The **OVERLAY** command then follows any **SUPPRESSION** command.

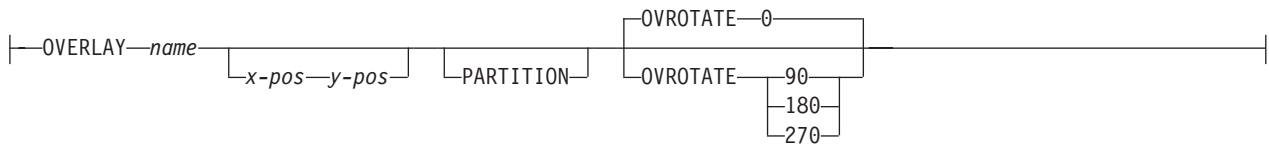




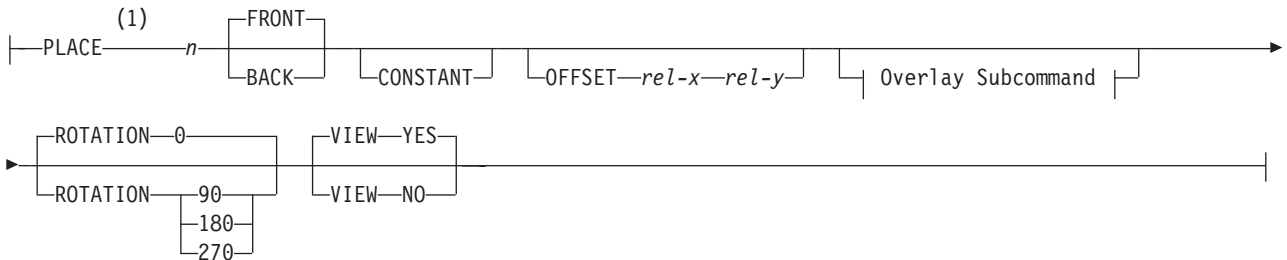
More OPERATION Parameters:



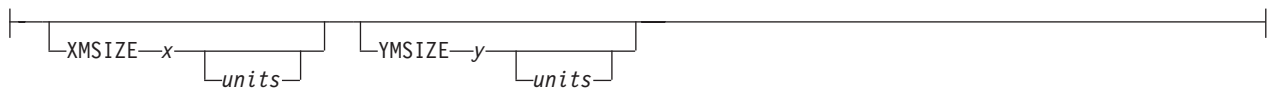
OVERLAY Subcommand:



PLACE Subcommand:



Form-size Parameters:

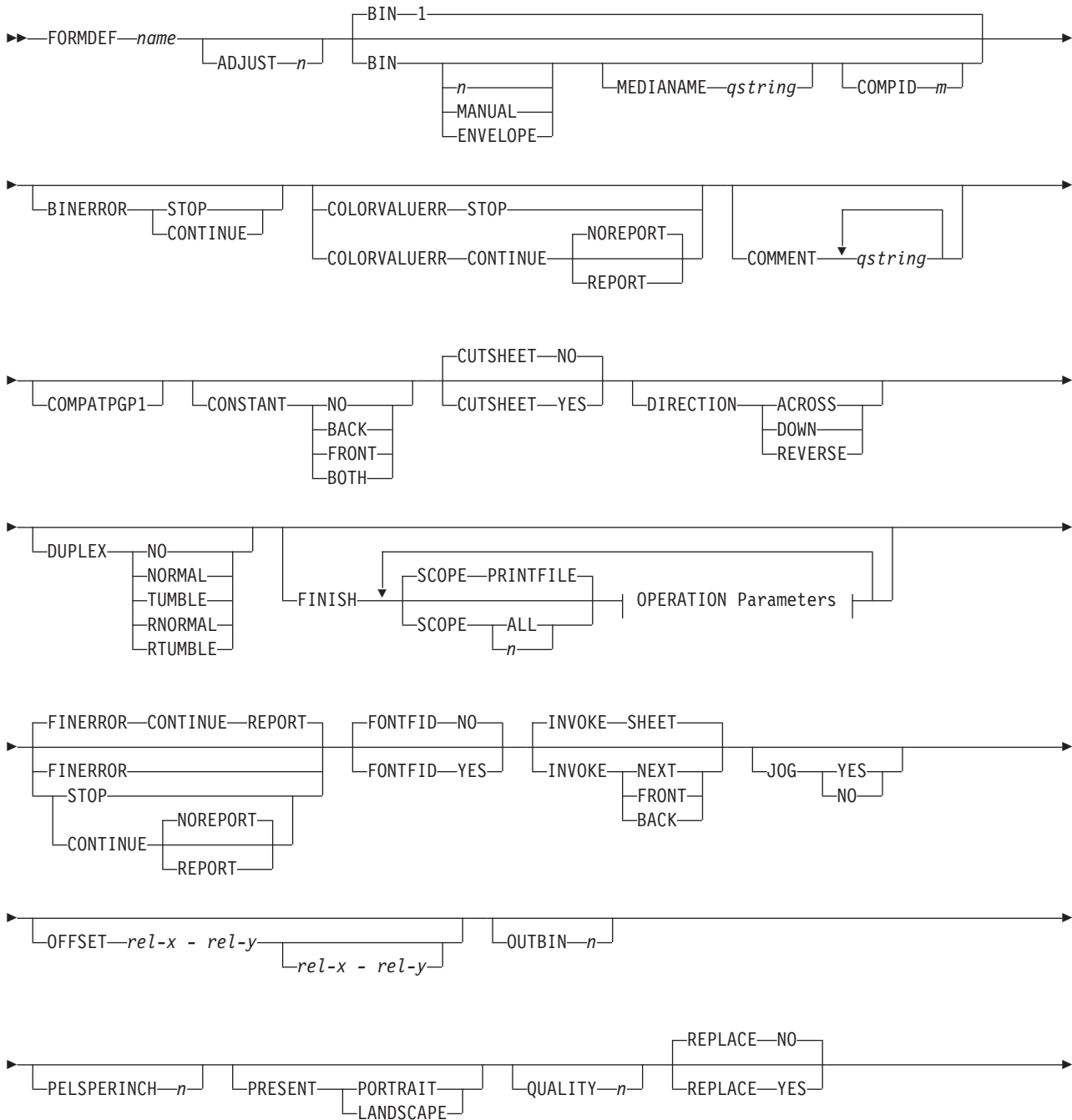


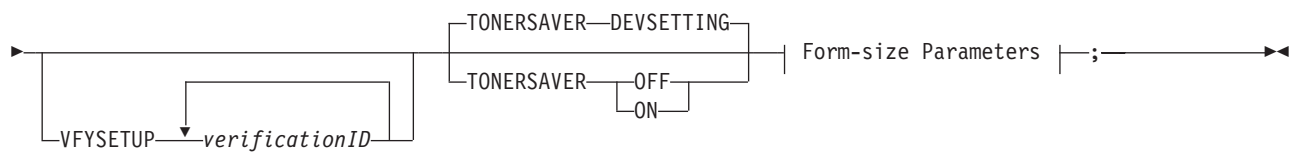
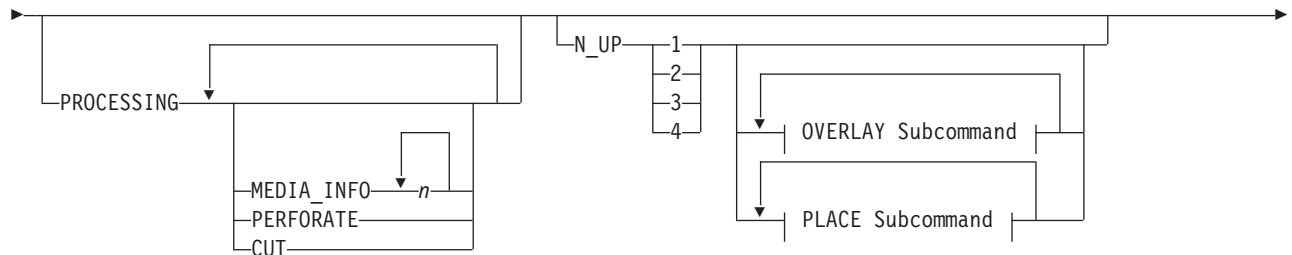
Notes:

- 1 The use of the **PLACE** subcommand indicates enhanced **N_UP** printing.

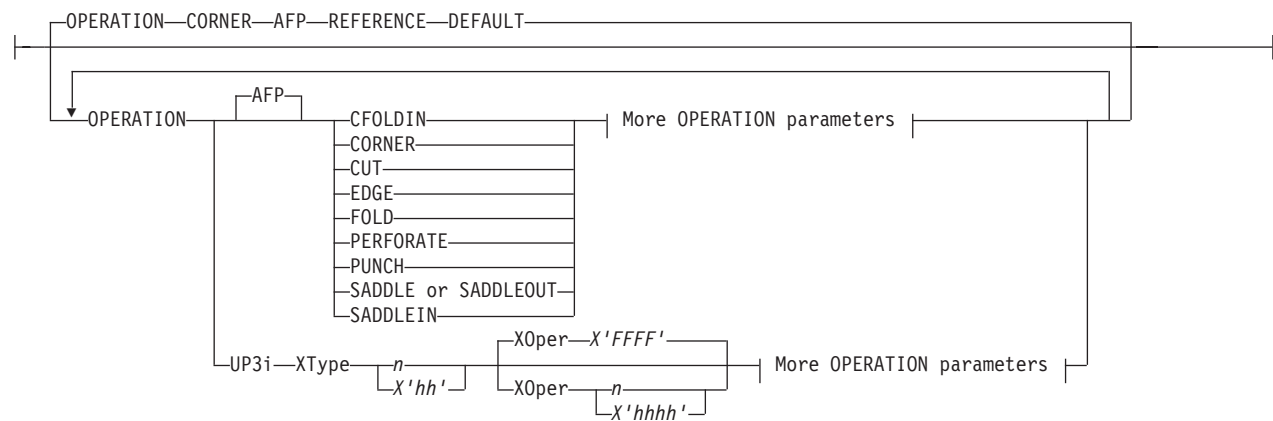
FORMDEF Command

FORMDEF Command

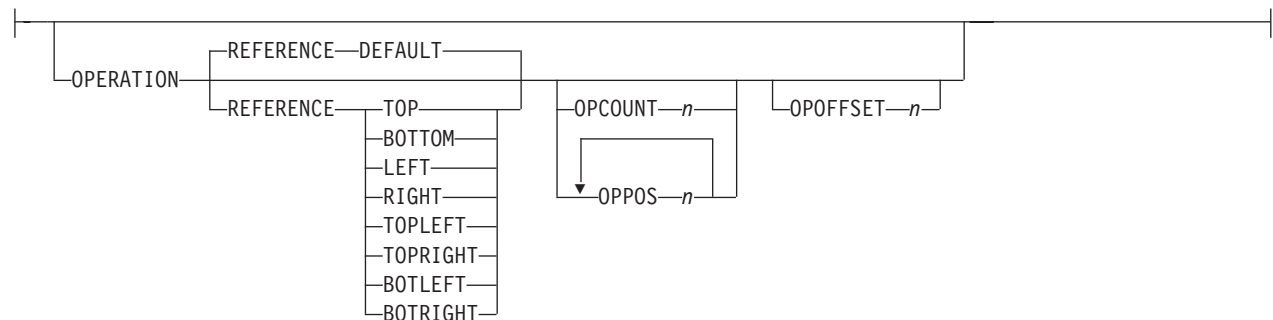




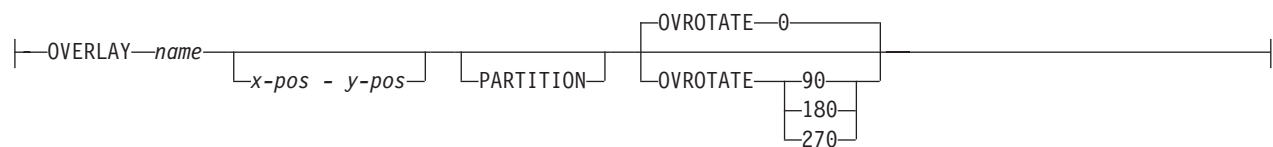
OPERATION Parameters:



More OPERATION Parameters:

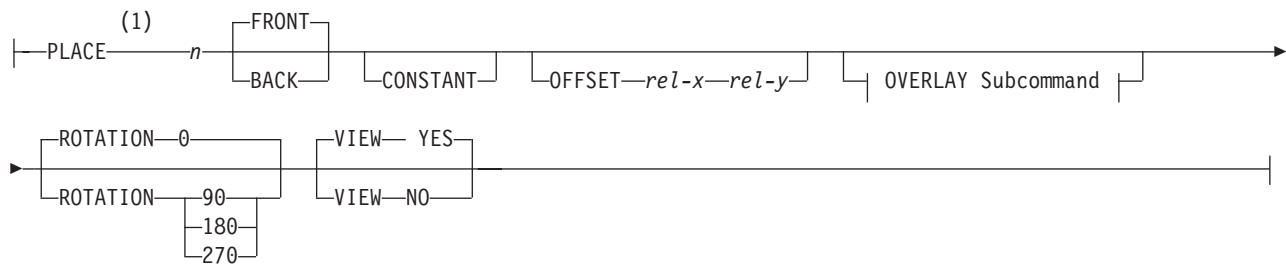


OVERLAY Subcommand:

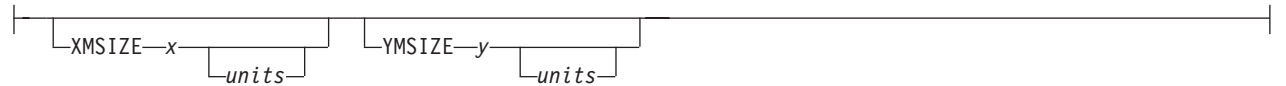


PLACE Subcommand:

Form Definition Commands



Form-size Parameters:



Notes:

- 1 The use of the **PLACE** subcommand indicates enhanced **N_UP** printing.

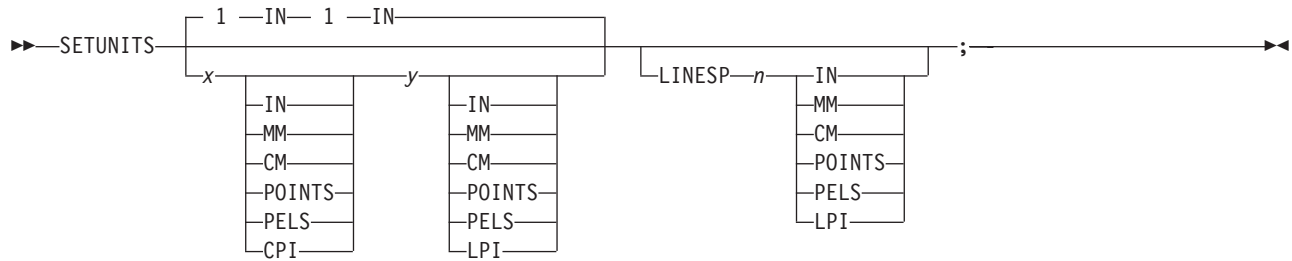
OVERLAY Command

OVERLAY Command



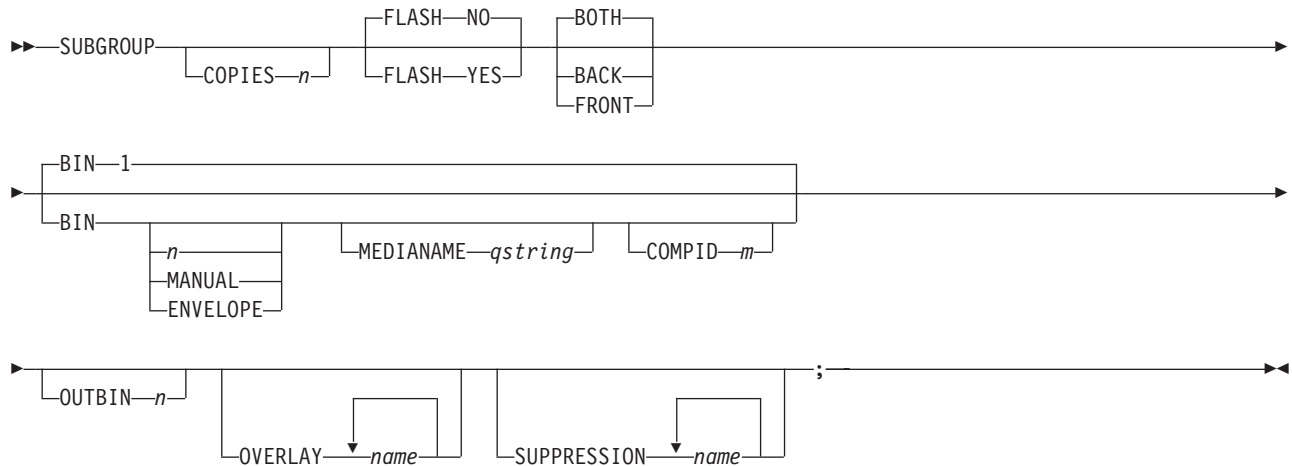
SETUNITS Command

SETUNITS Command



SUBGROUP Command

SUBGROUP Command



SUPPRESSION Command

SUPPRESSION Command



Chapter 3. Page Definition Commands (Traditional)

This section includes:

- Sequence of commands for page definitions
- Page definition commands listed alphabetically
- Syntax diagrams for each command.

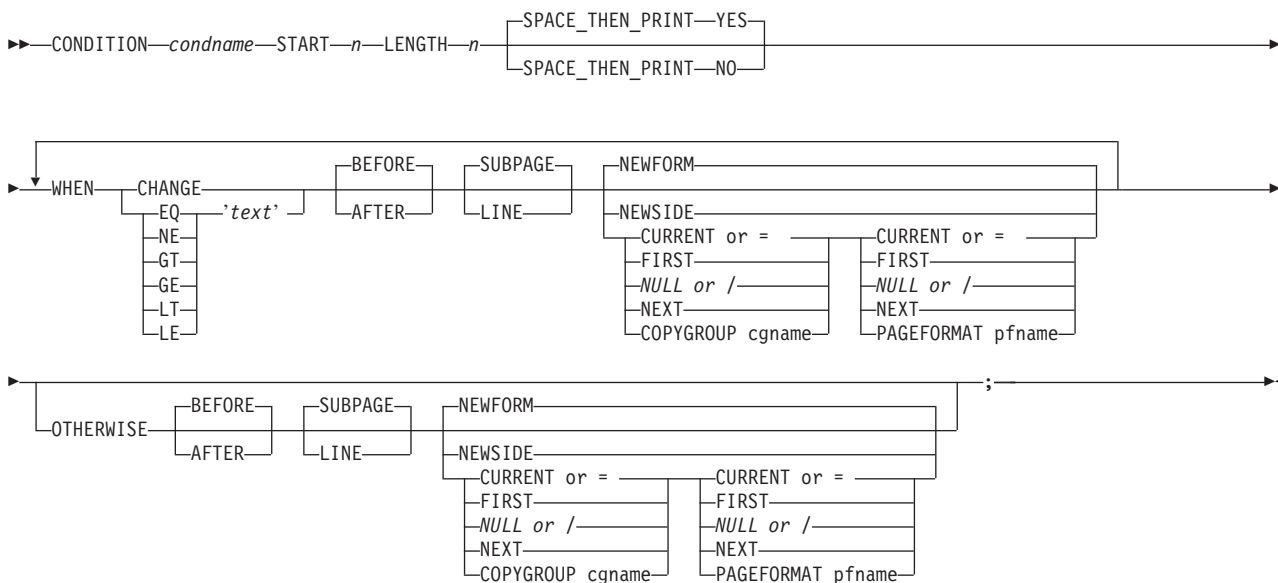
Sequence of Traditional Commands for Page Definitions with Printline

This section lists the required order of page definition commands.

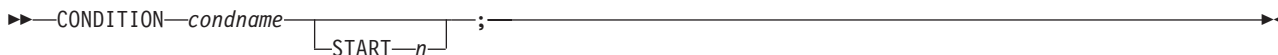
- **PAGEDEF** [**SETUNITS** ...]
- [**FONT** ...]
- [**OBJECT** ...]
- [**DEFINE COLOR**...]
- [**PAGEFORMAT**]
 - [**TRCREF** ...]
 - [**SEGMENT** ...]
 - [**OVERLAY** ...]
 - **PRINTLINE** [**FIELD** | **CONDITION** ...]
 - [**ENDSUBPAGE**] |
 - [**PRINTLINE** [**FIELD** | **CONDITION** ...] ...]
- [**PAGEFORMAT**]
 - [**TRCREF** ...]
 - [**SEGMENT** ...]
 - [**OVERLAY** ...]
 - **PRINTLINE** [**FIELD** | **CONDITION** ...]
 - [**ENDSUBPAGE**] |
 - [**PRINTLINE** [**FIELD** | **CONDITION** ...] ...]
- **FONT** commands must be specified immediately after a **PAGEDEF** command. The exception is the **SETUNITS** command.
- **OBJECT** commands must be specified immediately after any **FONT** commands and before any **PAGEFORMAT** or other commands, except the **SETUNITS** command.
- A **SETUNITS** command can be placed before any other PPFA command. The values set are in effect until the next **SETUNITS** command.
- **TRCREF**, **SEGMENT**, and **OVERLAY** commands must be specified under their associated **PAGEFORMAT** command.
- The first **PAGEFORMAT** command can be omitted in a page definition, if the page definition contains only one page format. If the **PAGEFORMAT** command is omitted, the **PAGEDEF** command parameters are used to define the page format.
- At least one **PRINTLINE** command is required per page format for Traditional Line Data Page definition. **PRINTLINE** and **LAYOUT** commands cannot be used within the same page definition.
- An **ENDSUBPAGE** command can occur anywhere in a page definition that a **PRINTLINE** command can occur, except it can not occur between a **PRINTLINE** command and its associated **FIELD** and **CONDITION** commands.
- One file can contain multiple sets of page definitions.

CONDITION Command (Traditional)

CONDITION Command

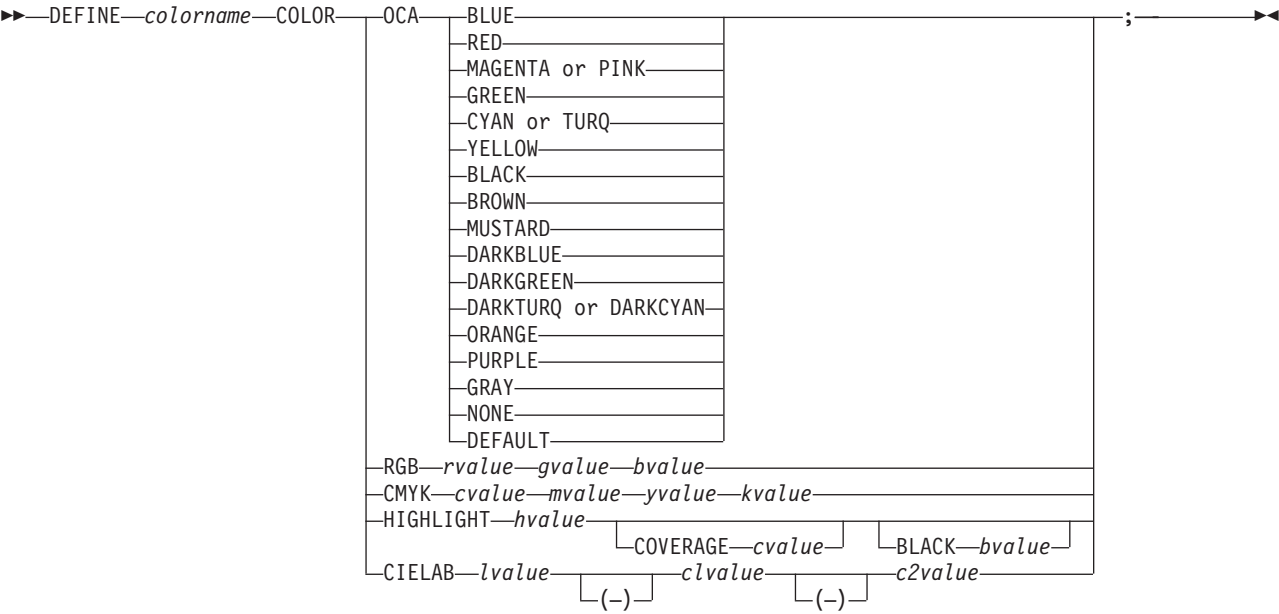


Short Form



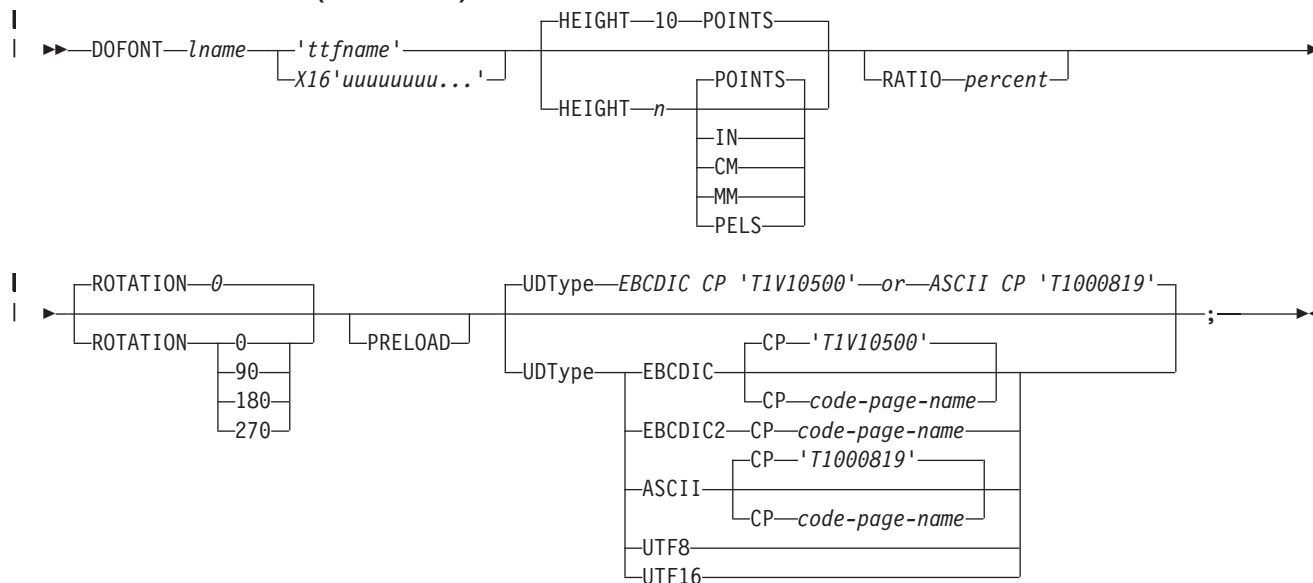
DEFINE COLOR Command (Traditional)

DEFINE COLOR Command



DOFONT Command (Traditional)

DOFONT Command (Traditional)



ENDSUBPAGE Command (Traditional)

ENDSUBPAGE Command

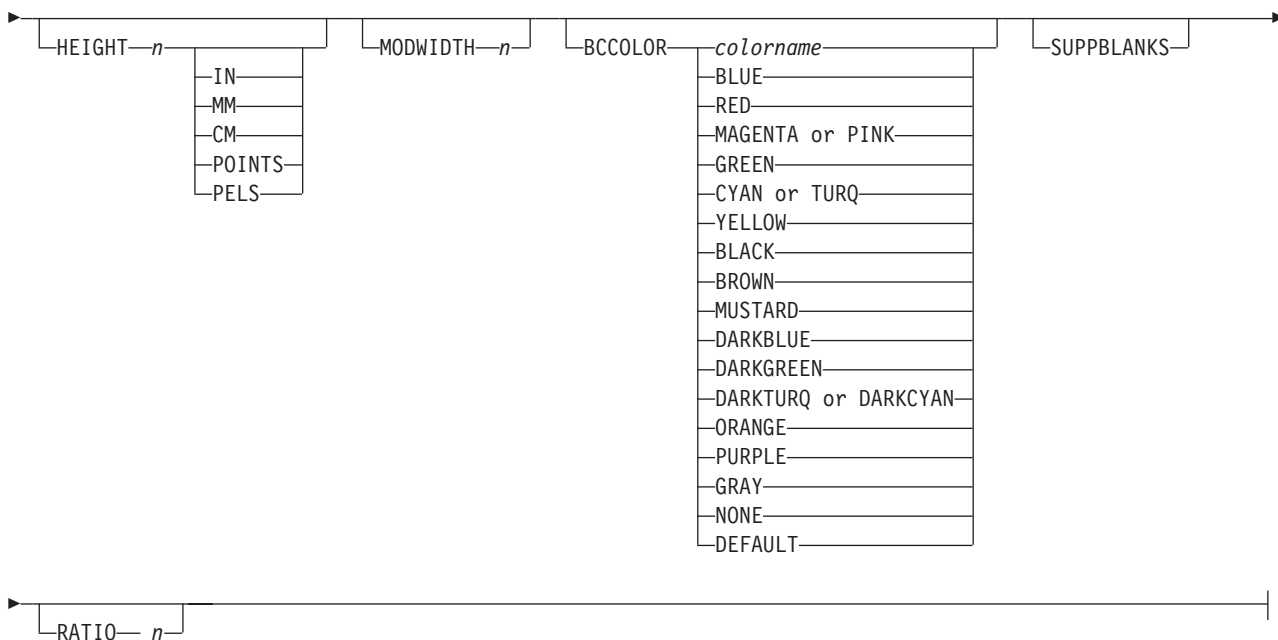
▶▶ **ENDSUBPAGE** — ; — ▶▶

EXTREF Command (Traditional)

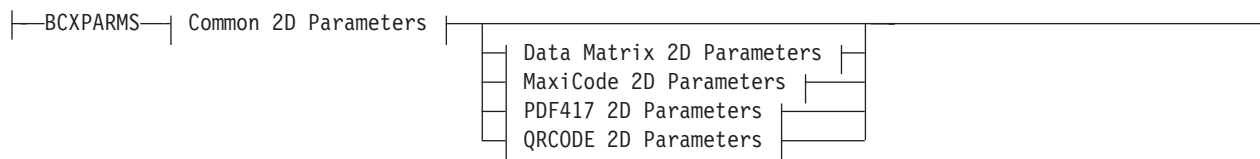
EXTREF Command (Traditional)

▶▶ **EXTREF** — *lname* — ; — ▶▶

Page Definition Commands (Traditional)



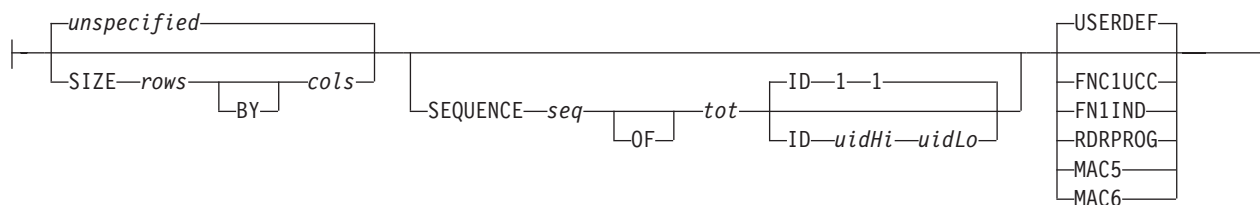
2D BARCODE Parameters:



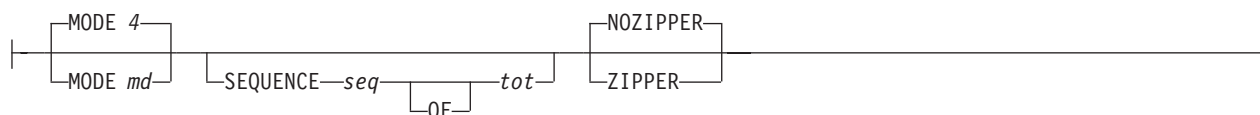
Common 2D Parameters:



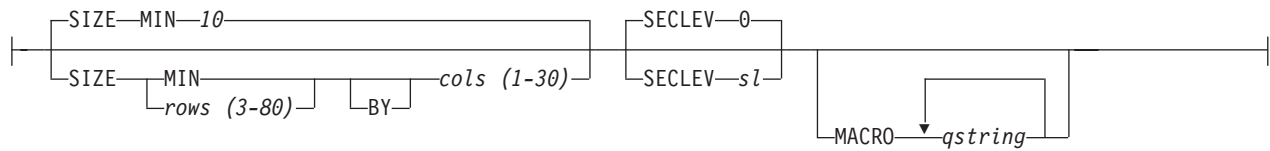
Data Matrix 2D Parameters:



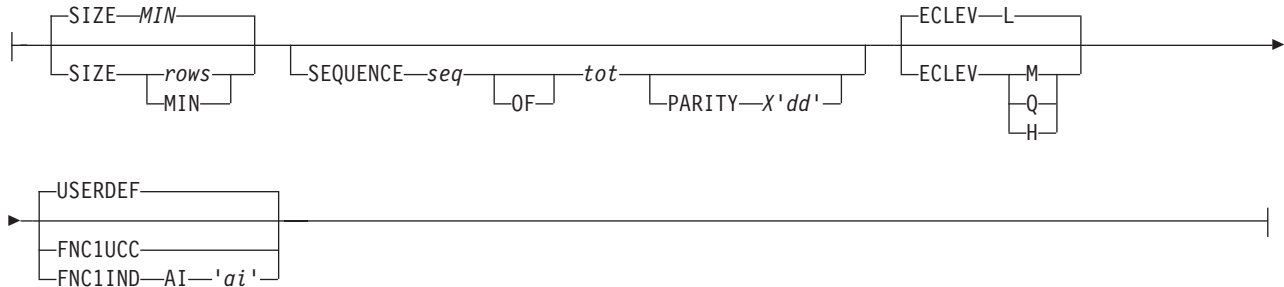
MaxiCode 2D Parameters:



PDF417 2D Parameters:

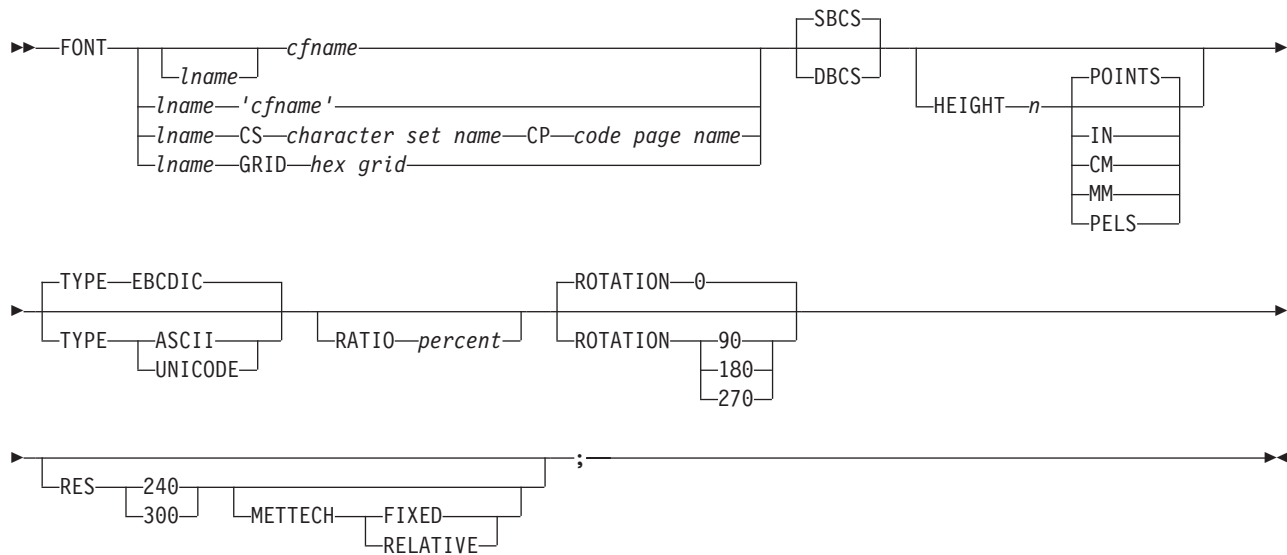


QR CODE 2D Parameters:



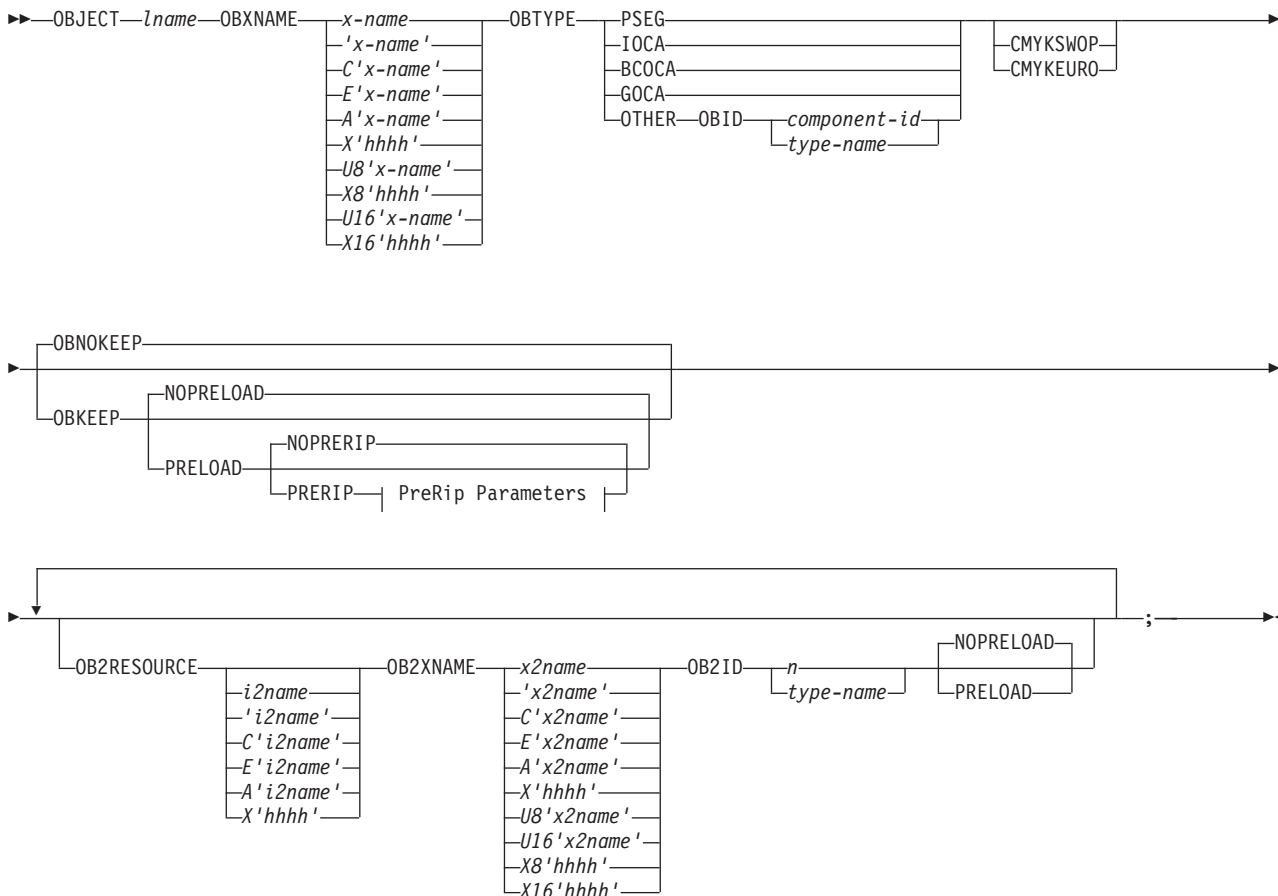
FONT Command (Traditional)

FONT Command

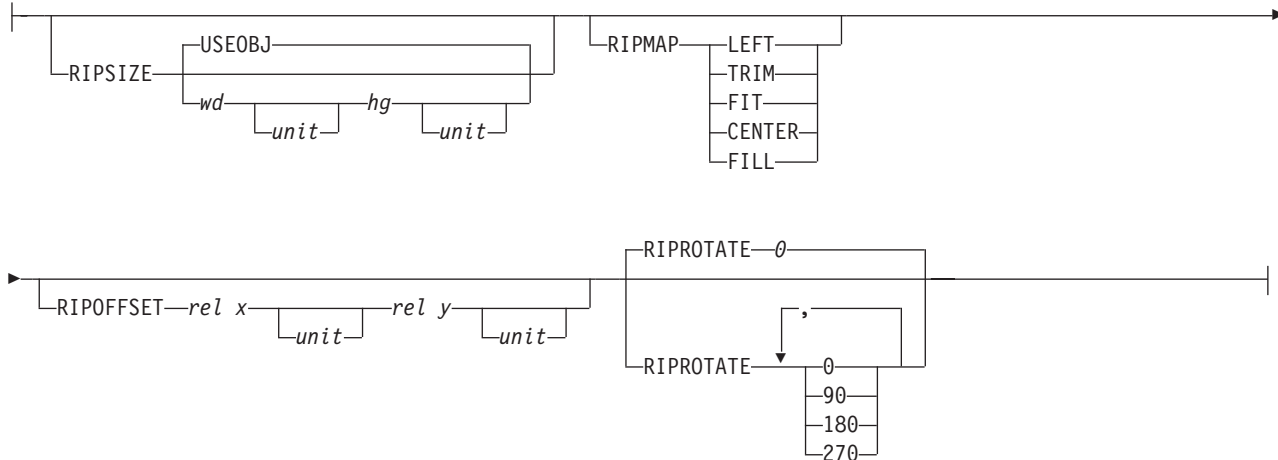


OBJECT Command (Traditional)

OBJECT Command

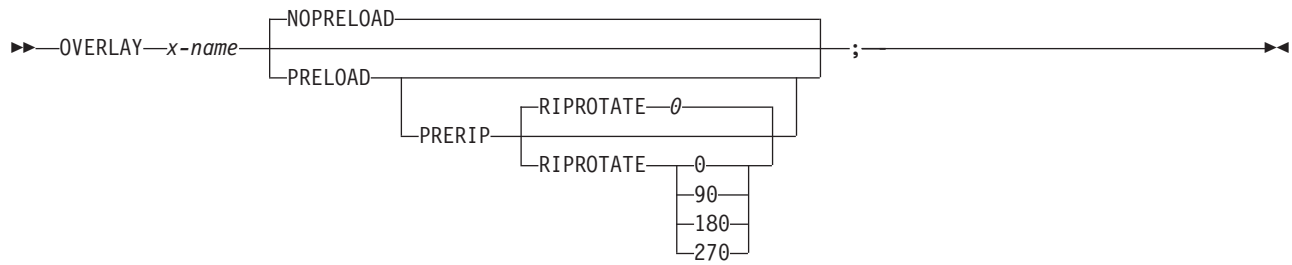


PreRip Parameters:



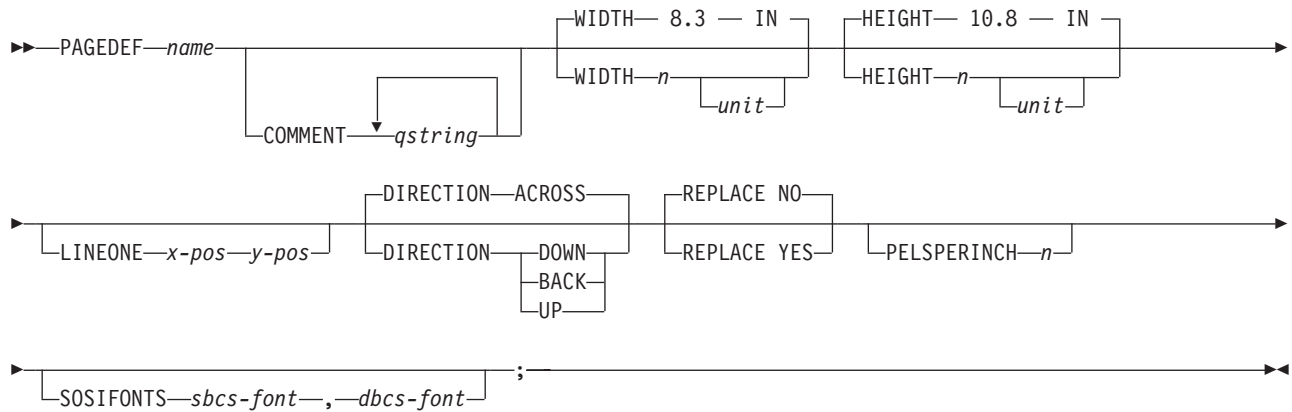
OVERLAY Command (Traditional)

OVERLAY Command



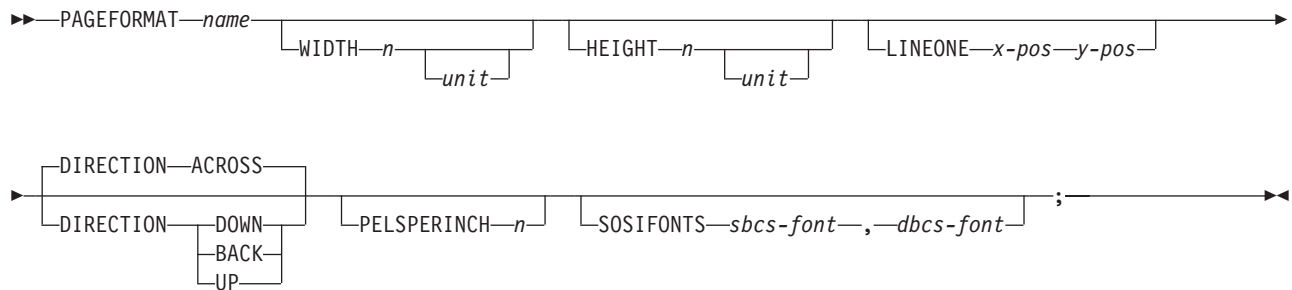
PAGEDEF Command (Traditional)

PAGEDEF Command



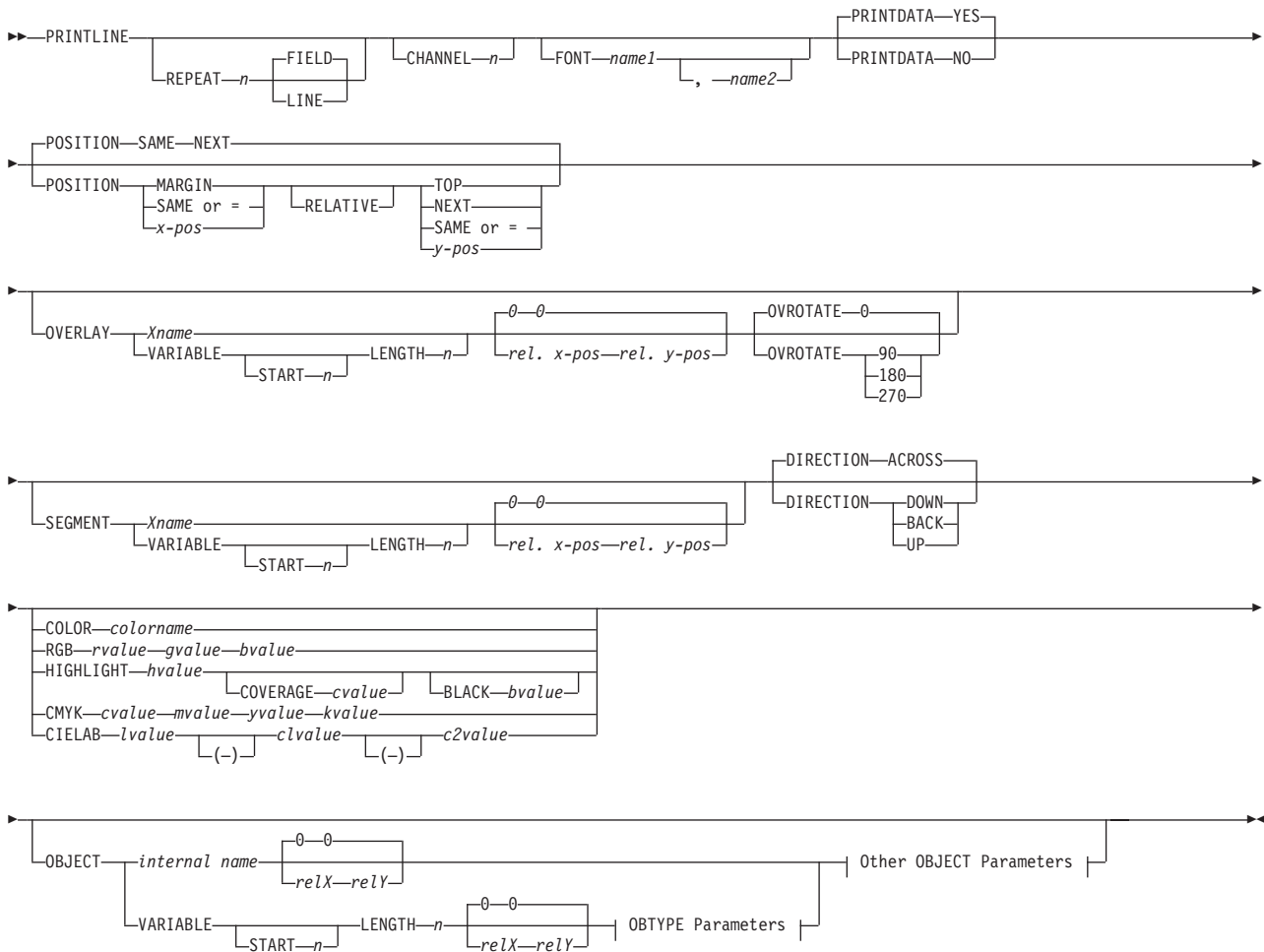
PAGEFORMAT Command (Traditional)

PAGEFORMAT Command



PRINTLINE Command (Traditional)

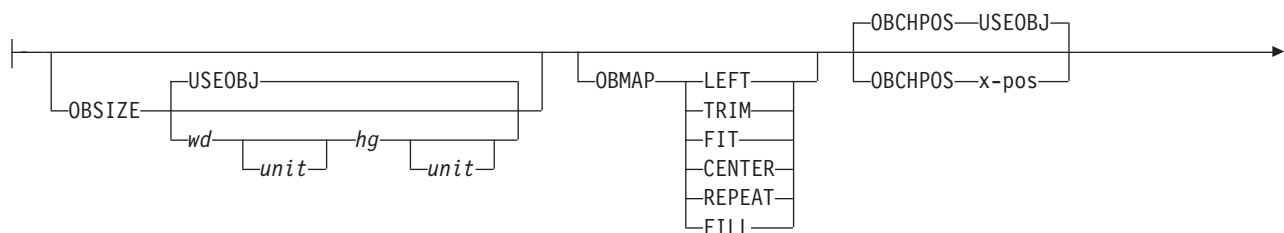
PRINTLINE Command

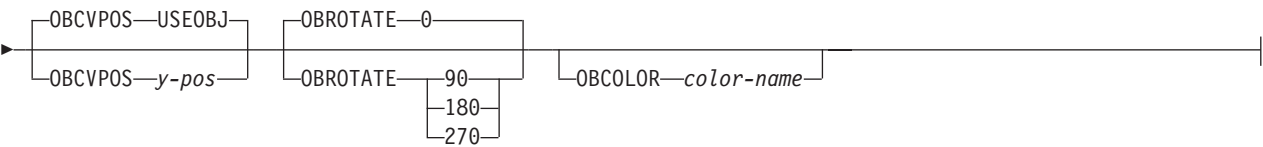


OBTYP Parameters:



Other OBJECT Parameters:





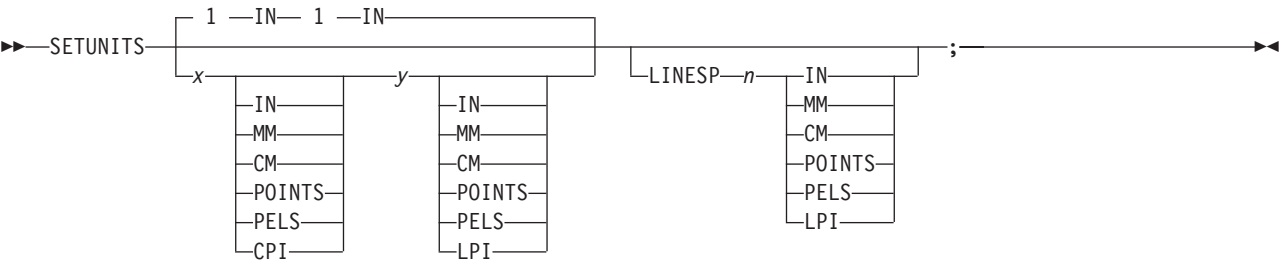
SEGMENT Command (Traditional)

SEGMENT Command



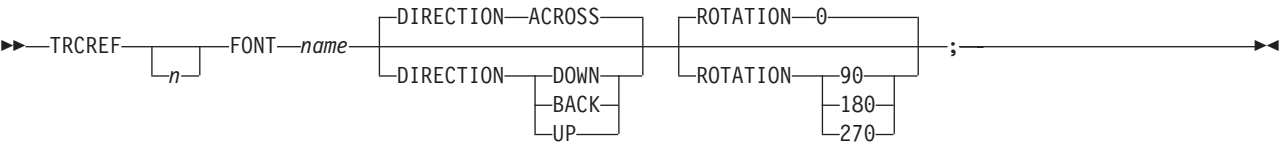
SETUNITS Command (Traditional)

SETUNITS Command



TRCREF Command (Traditional)

TRCREF Command



Chapter 4. Page Definition Command Reference (Record Formatting and XML)

This section includes:

- Sequence of record formatting commands for page definitions
- Commands listed alphabetically
- Syntax diagram for each command.

Sequence of Record Format Commands for Page Definitions with Layout

This section lists the required order of form definition record format commands.

```
[ SETUNITS ... ]
PAGEDEF
FONT
[OBJECT ... ]
[DEFINE COLOR... ]
[ PAGEFORMAT ]
  [ SEGMENT ...]
  [ OVERLAY ...]
  [ LAYOUT ...]
  [ CONDITION ...]
  [ FIELD ...]
  [ DRAWGRAPHIC ...]
  [ ENDGRAPHIC ...]
[ PAGEFORMAT ]
  [ SEGMENT ...]
  [ OVERLAY ...]
  [ LAYOUT ...]
  [ CONDITION ...]
  [ FIELD ...]
  [ DRAWGRAPHIC ...]
  [ ENDGRAPHIC ...]
```

- **LAYOUT** commands and **PRINTLINE** commands cannot be used within the same **PAGEDEF**. At least one **LAYOUT** command is required per page format for a record formatting page definition.
- A **SETUNITS** command can be placed before any other PPFA command. The values set are in effect until the next **SETUNITS** command.
- **SEGMENT** and **OVERLAY** commands must be specified under their associated **PAGEFORMAT** command.
- The first **PAGEFORMAT** command can be omitted in a page definition, if the page definition contains only one page format. If the **PAGEFORMAT** command is omitted, the **PAGEDEF** command parameters are used to define the page format.
- One file can contain multiple sets of page definitions.
- At least one **FONT** command is required for each **PAGEDEF** command.

Sequence of Commands for XML Page Definitions with XLAYOUT

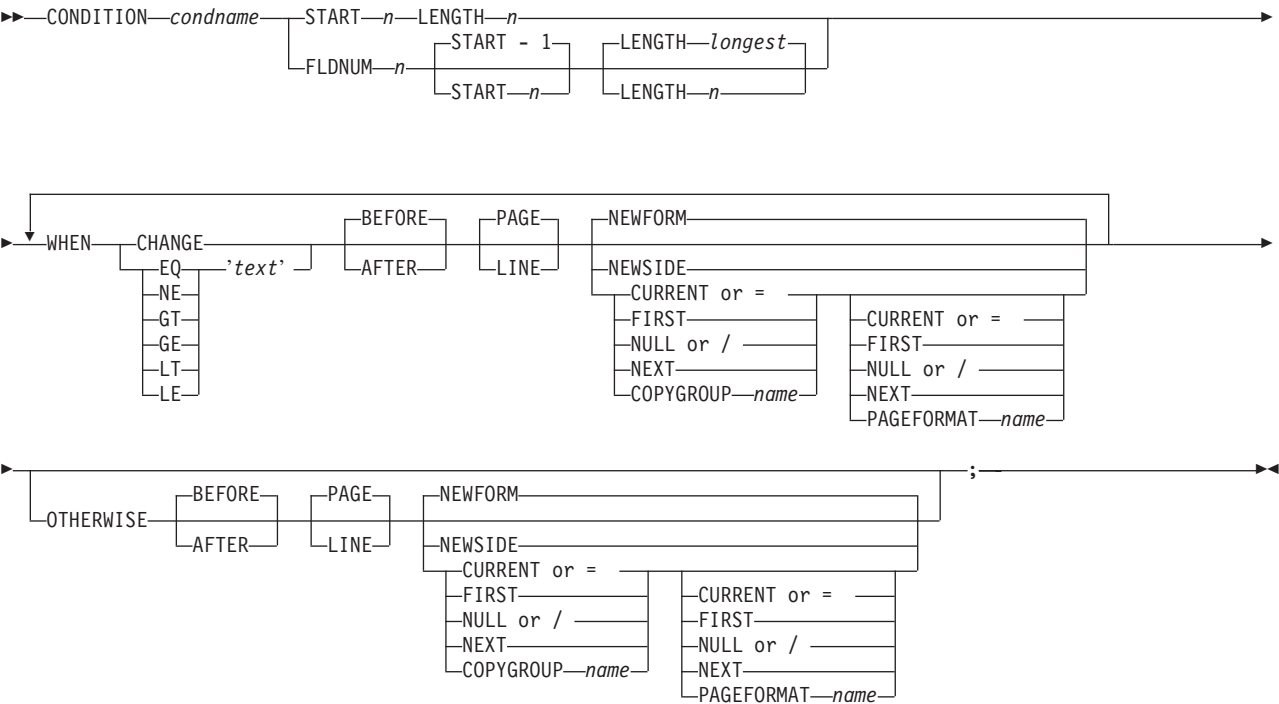
This section lists the required order of form definition record format commands.

```
[ SETUNITS ... ]
PAGEDEF
FONT
[OBJECT ... ]
[DEFINE COLOR ... ]
[DEFINE QTAG ... ]
[ PAGEFORMAT ]
  [ SEGMENT ...]
  [ OVERLAY ...]
  [ XLAYOUT ...]
  [ CONDITION ...]
  [ FIELD ...]
  [ DRAWGRAPHIC ...]
  [ ENDGRAPHIC ...]
[ PAGEFORMAT ]
  [ SEGMENT ...]
  [ OVERLAY ...]
  [ XLAYOUT ...]
  [ CONDITION ...]
  [ FIELD ...]
  [ DRAWGRAPHIC ...]
  [ ENDGRAPHIC ...]
```

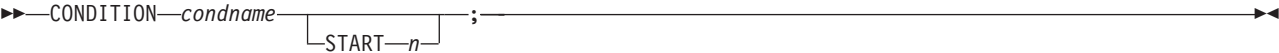
- **XLAYOUT**, **XLAYOUT**, and **PRINTLINE** commands cannot be mixed within the same **PAGEDEF**. At least one **XLAYOUT** command is required per page format for an XML page definition. At least one **FONT** command is required for each **PAGEDEF** command.
- A **SETUNITS** command can be placed before any other PPFA command. The values set are in effect until the next **SETUNITS** command.
- **SEGMENT** and **OVERLAY** commands must be specified under their associated **PAGEFORMAT** command.
- The first **PAGEFORMAT** command can be omitted in a page definition if the page definition contains only one page format. If the **PAGEFORMAT** command is omitted, the **PAGEDEF** command parameters are used to define the page format.
- One file can contain multiple sets of page definitions.

CONDITION Command (Record Format and XML)

CONDITION Command

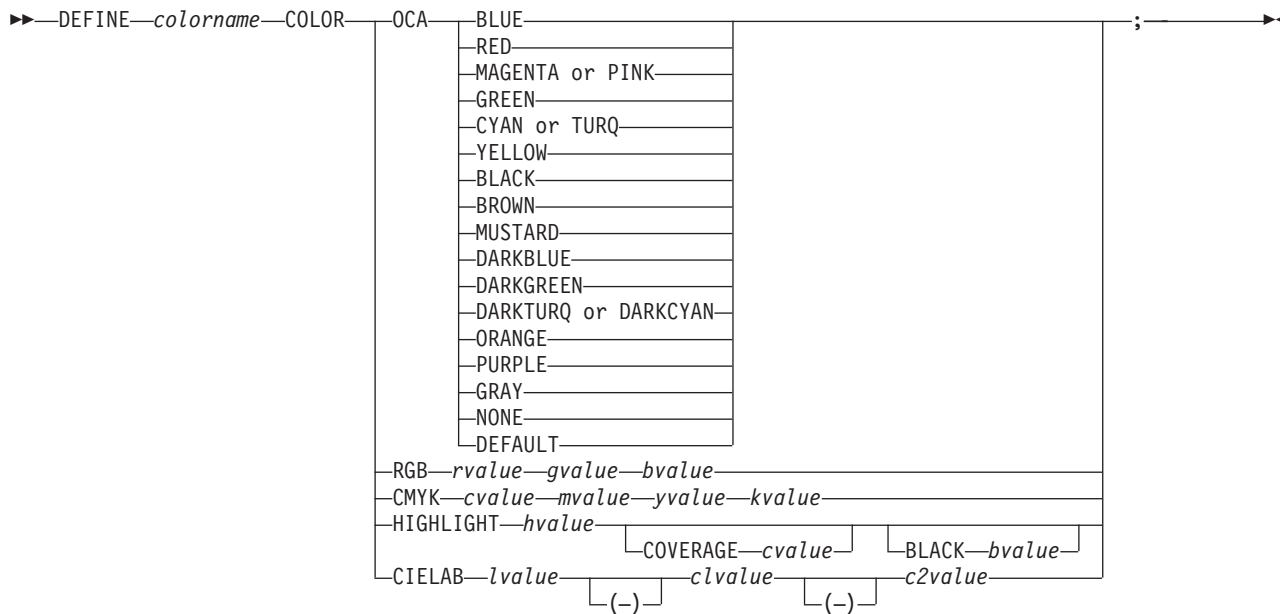


Short Form



DEFINE COLOR Command (Record Format and XML)

DEFINE COLOR Command



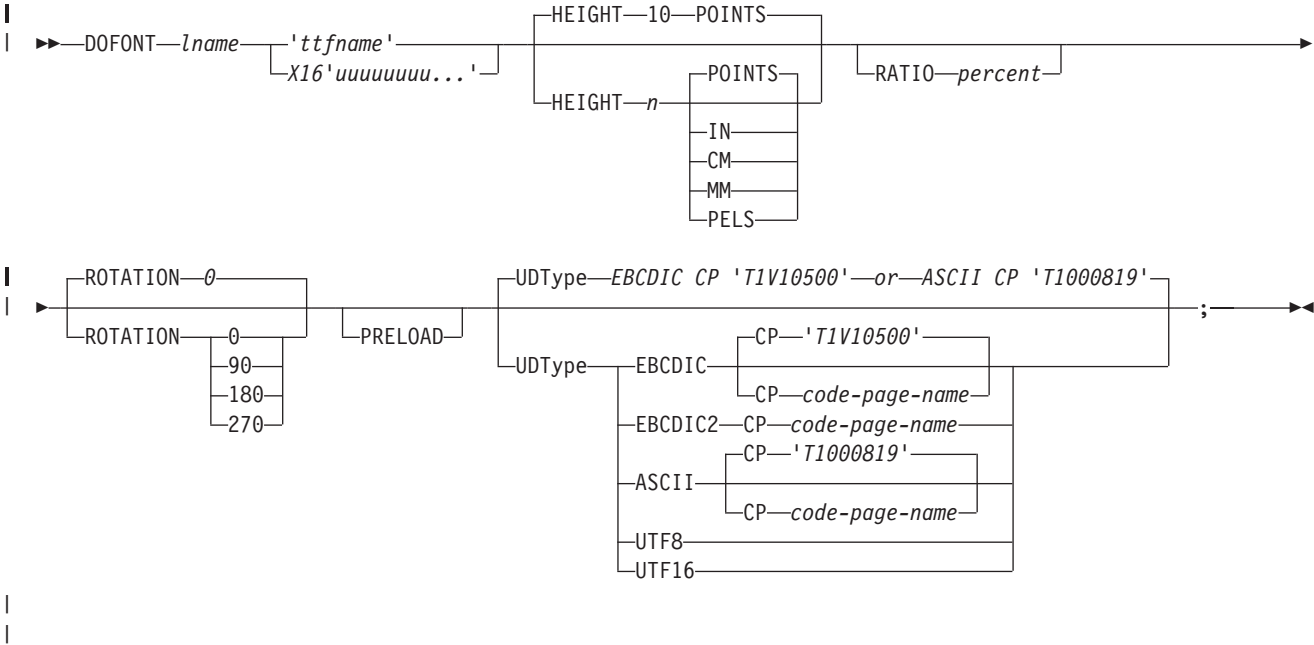
DEFINE QTAG Command (XML)

DEFINE QTAG Command



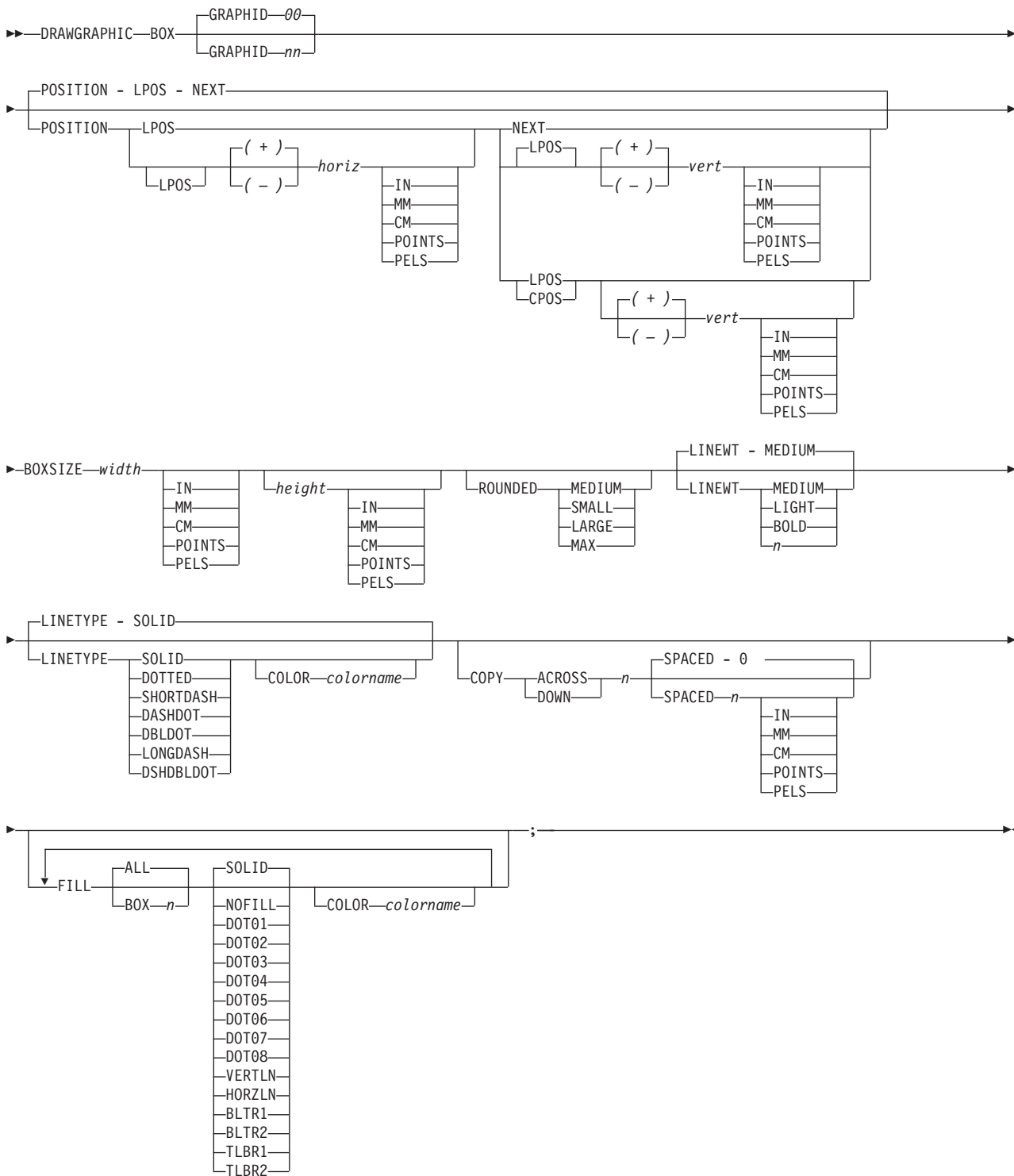
DOFONT Command (Record Format and XML)

DOFONT Command (Record Format and XML)



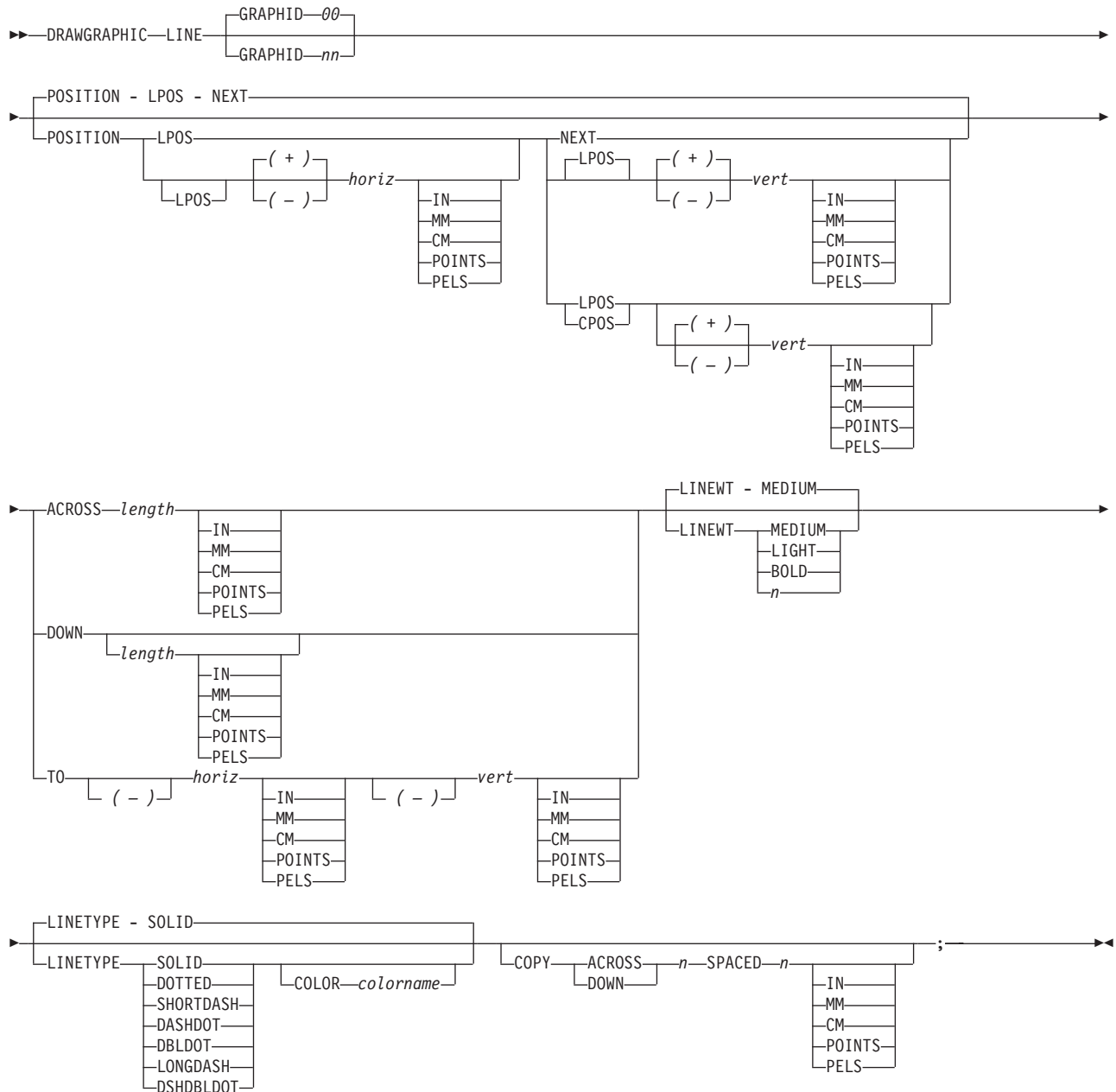
DRAWGRAPHIC - BOX Command (Record Format and XML)

DRAWGRAPHIC - BOX Command



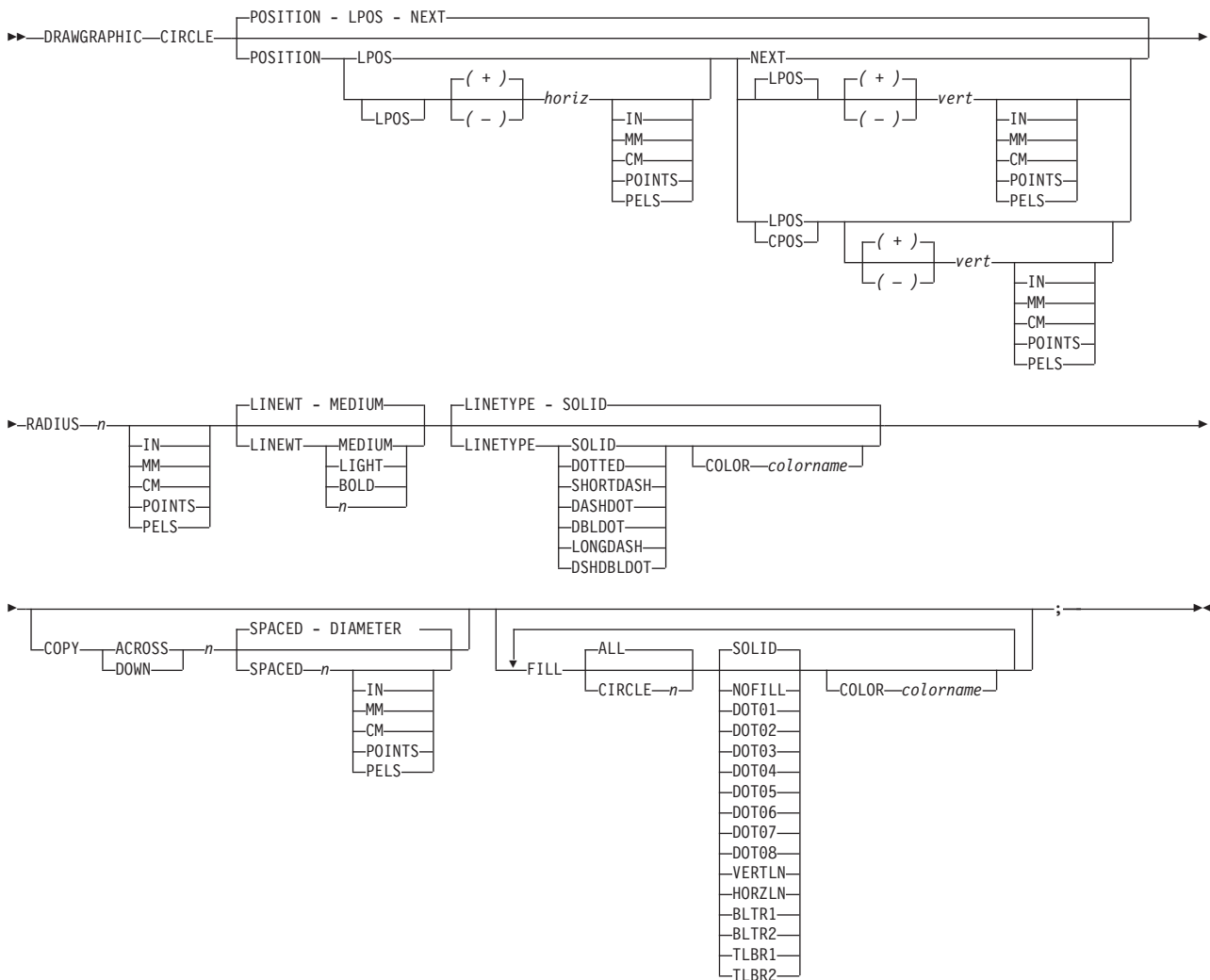
DRAWGRAPHIC - LINE Command (Record Format and XML)

DRAWGRAPHIC - LINE Command



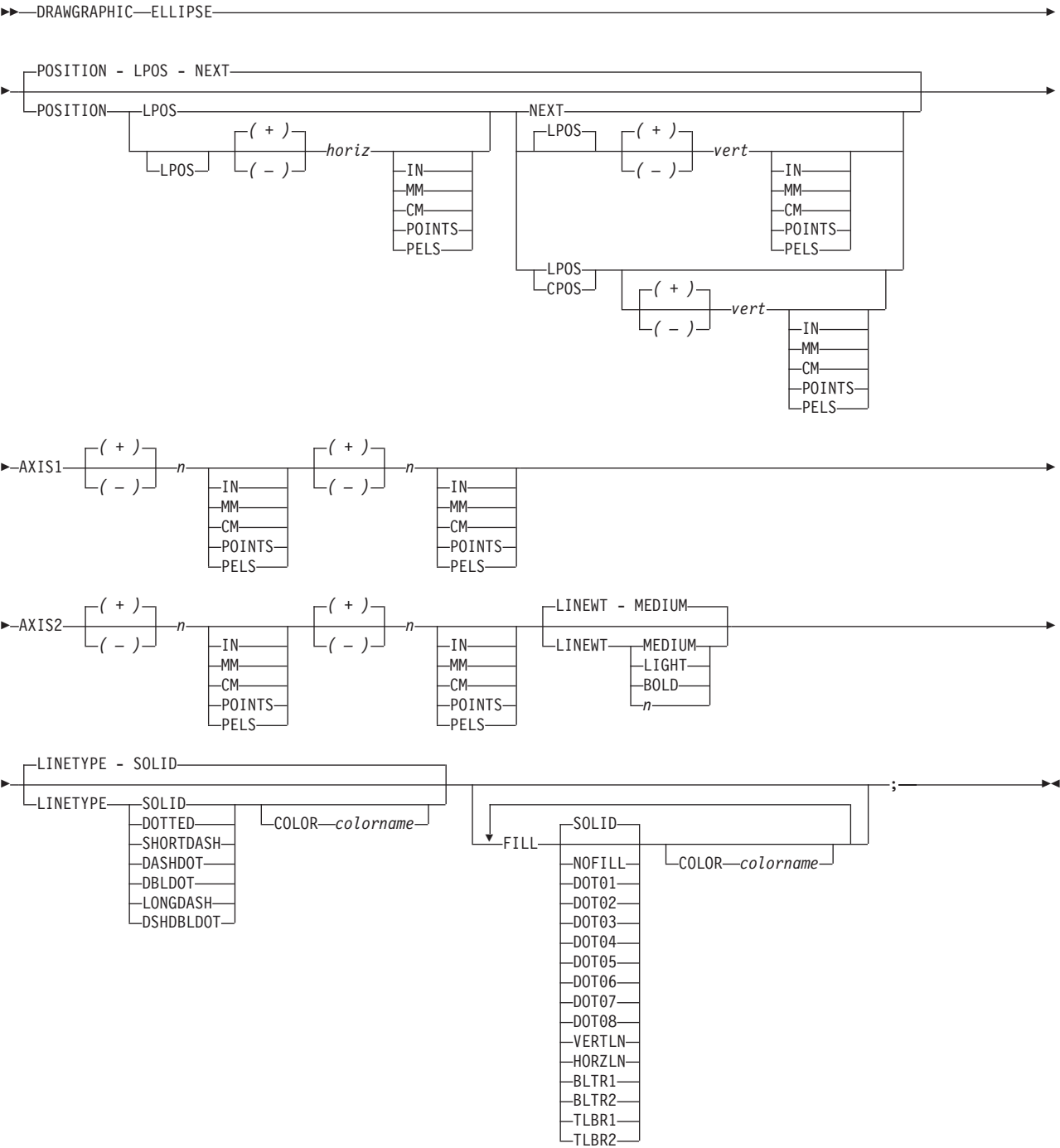
DRAWGRAPHIC - CIRCLE Command (Record Format and XML)

DRAWGRAPHIC - CIRCLE Command



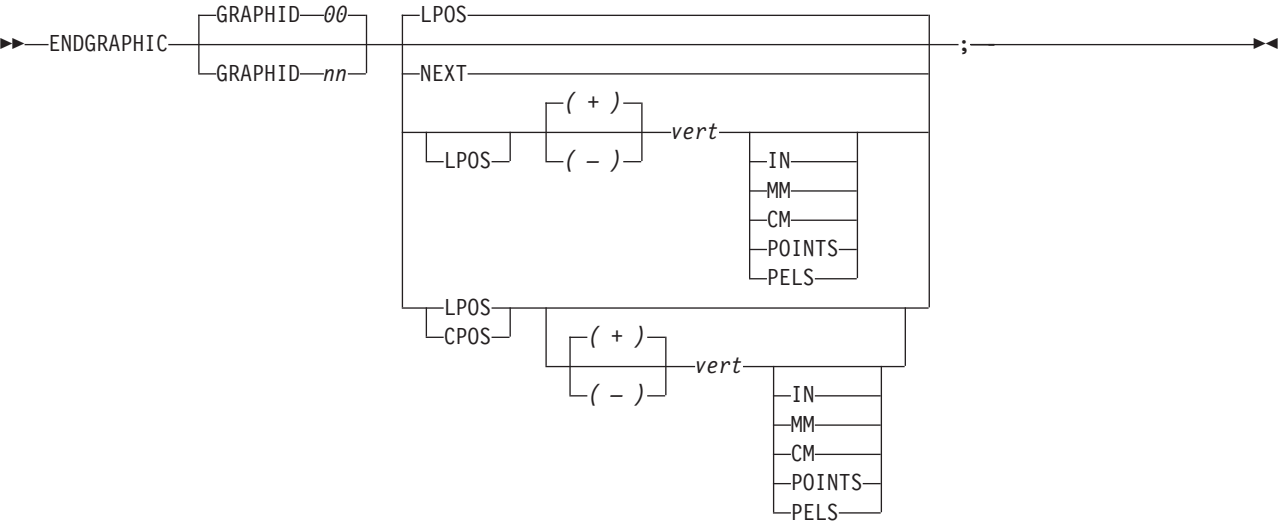
DRAWGRAPHIC - ELLIPSE Command (Record Format and XML)

DRAWGRAPHIC - ELLIPSE Command



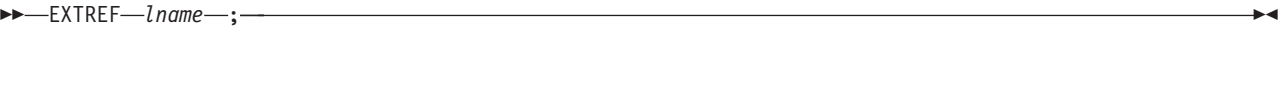
ENDGRAPHIC Command (Record Format and XML)

ENDGRAPHIC Command



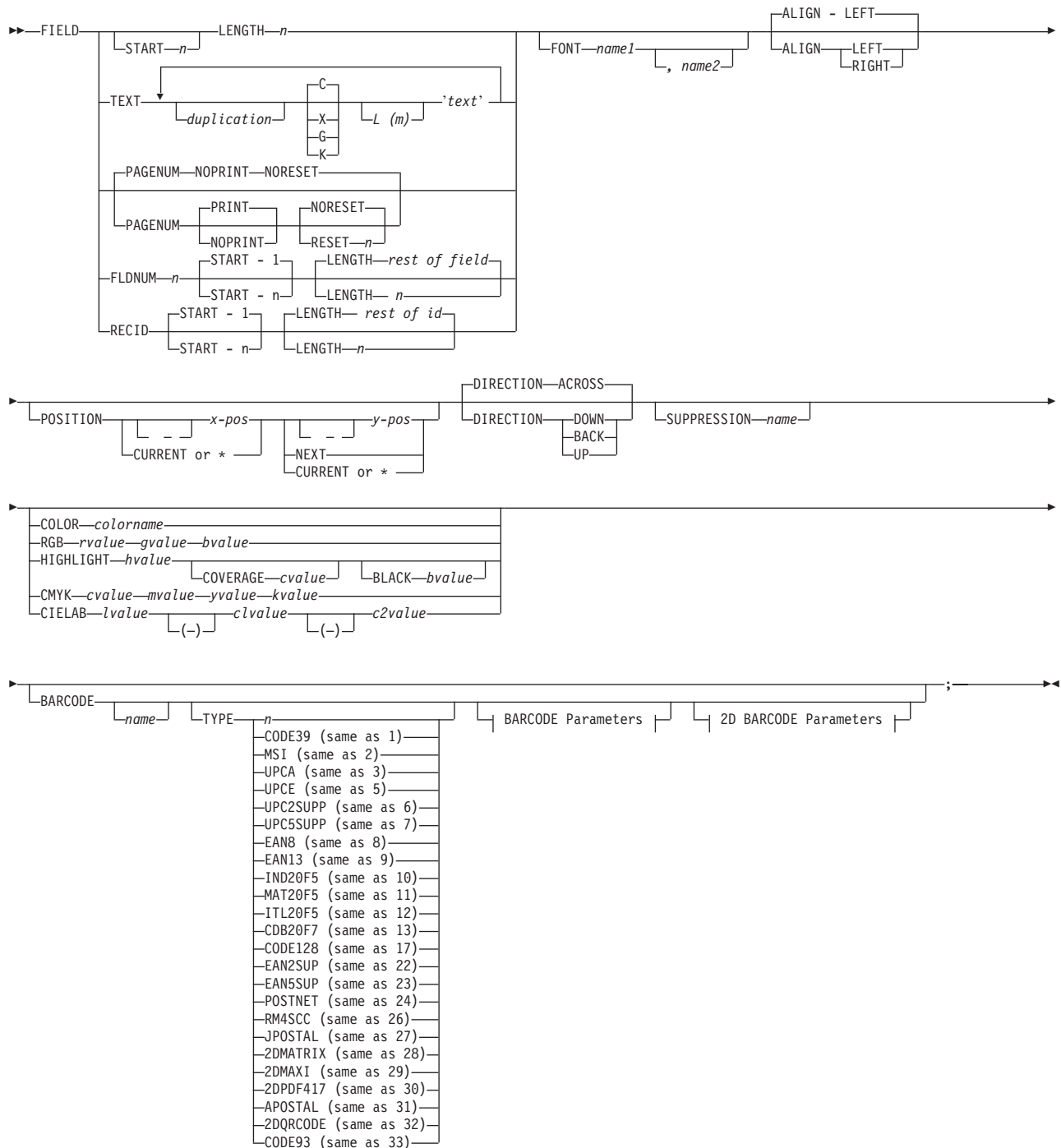
EXTREF Command (Record Format and XML)

EXTREF Command (Record Format and XML)



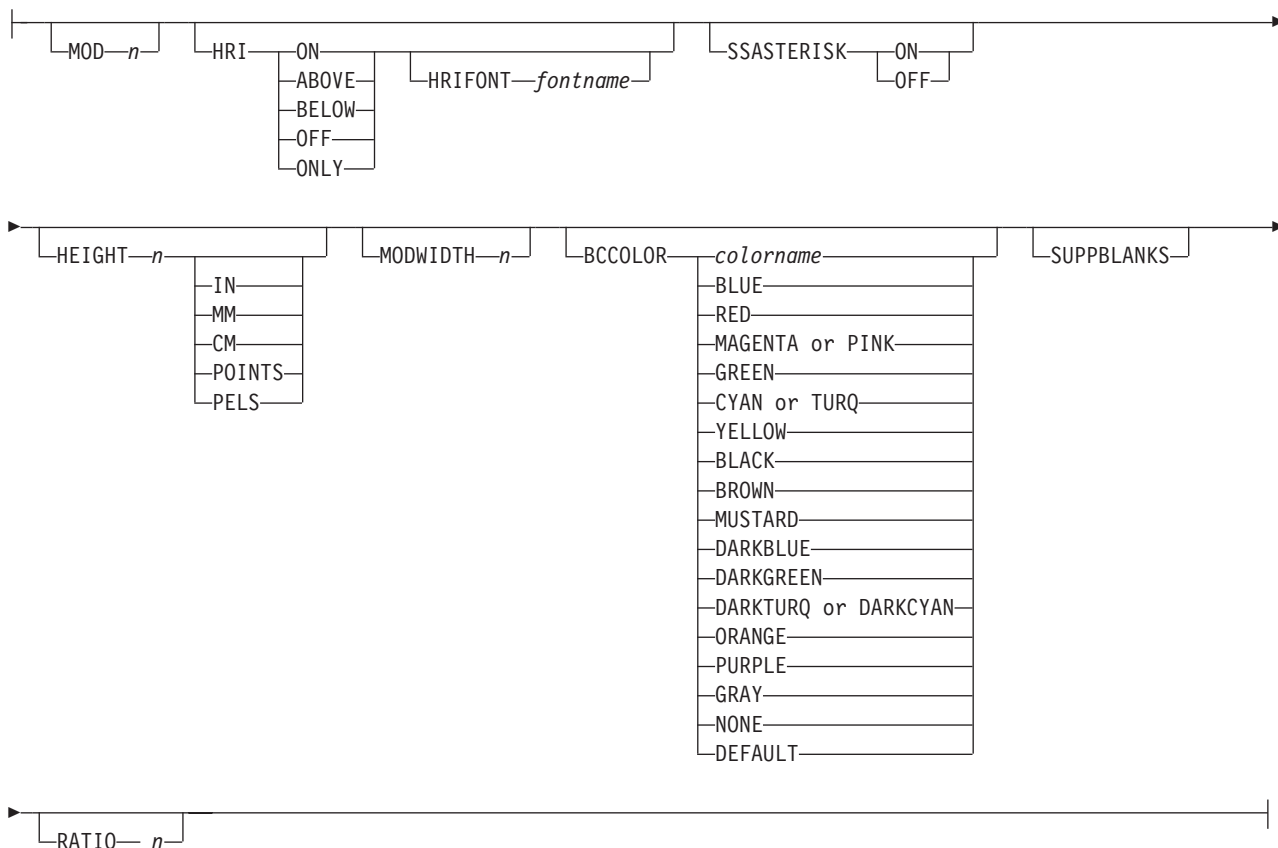
FIELD Command (Record Format)

FIELD Command (Record Format)

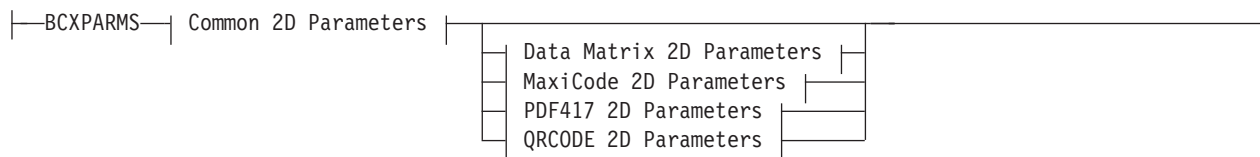


BARCODE Parameters:

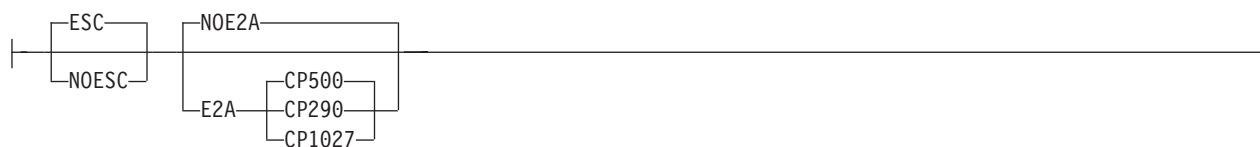
Page Definition Command (Record Formatting and XML)



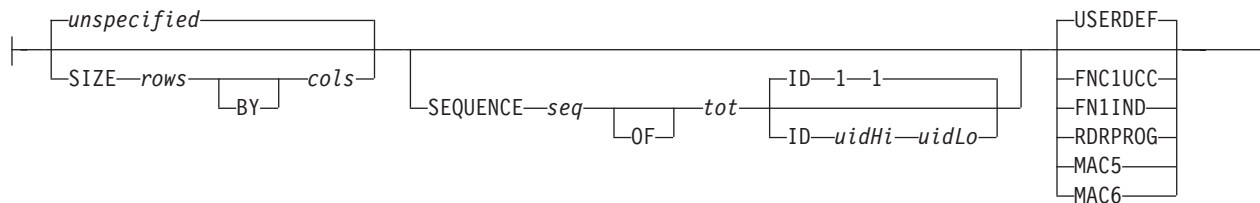
2D BARCODE Parameters:



Common 2D Parameters:

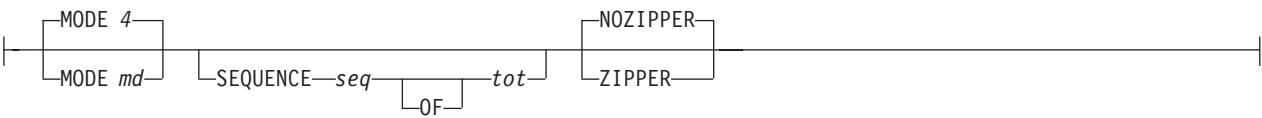


Data Matrix 2D Parameters:

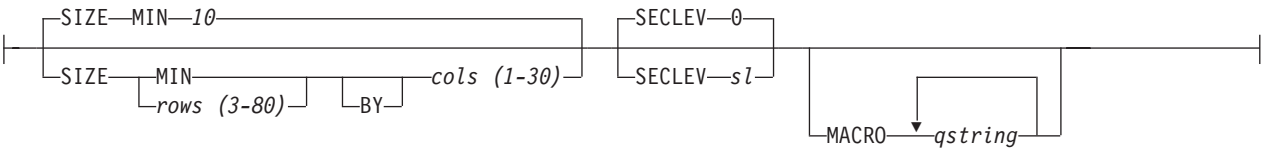


MaxiCode 2D Parameters:

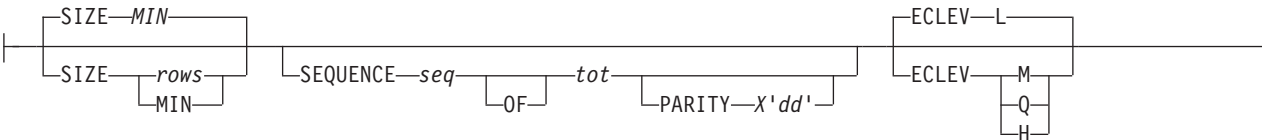
Page Definition Command (Record Formatting and XML)



PDF417 2D Parameters:

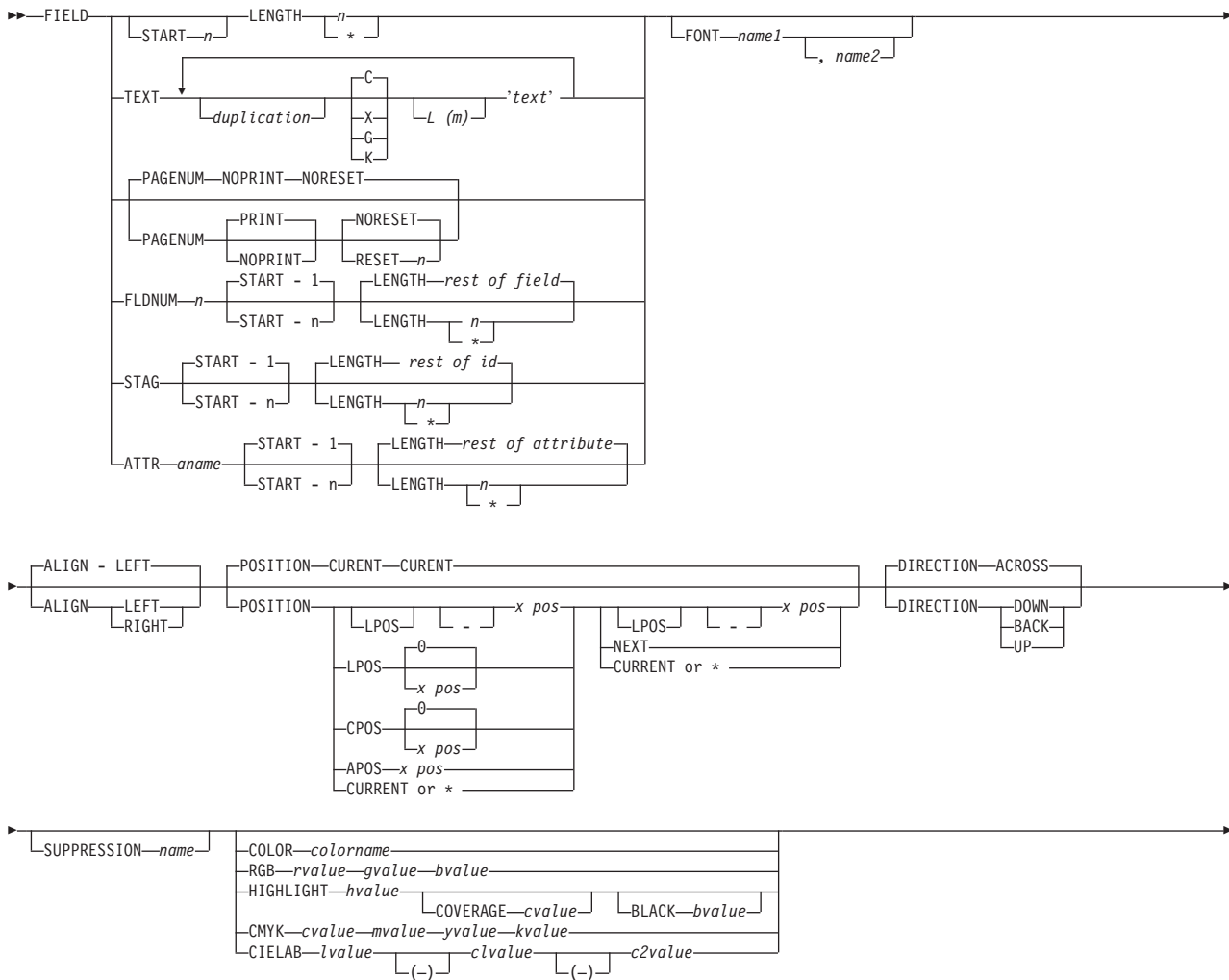


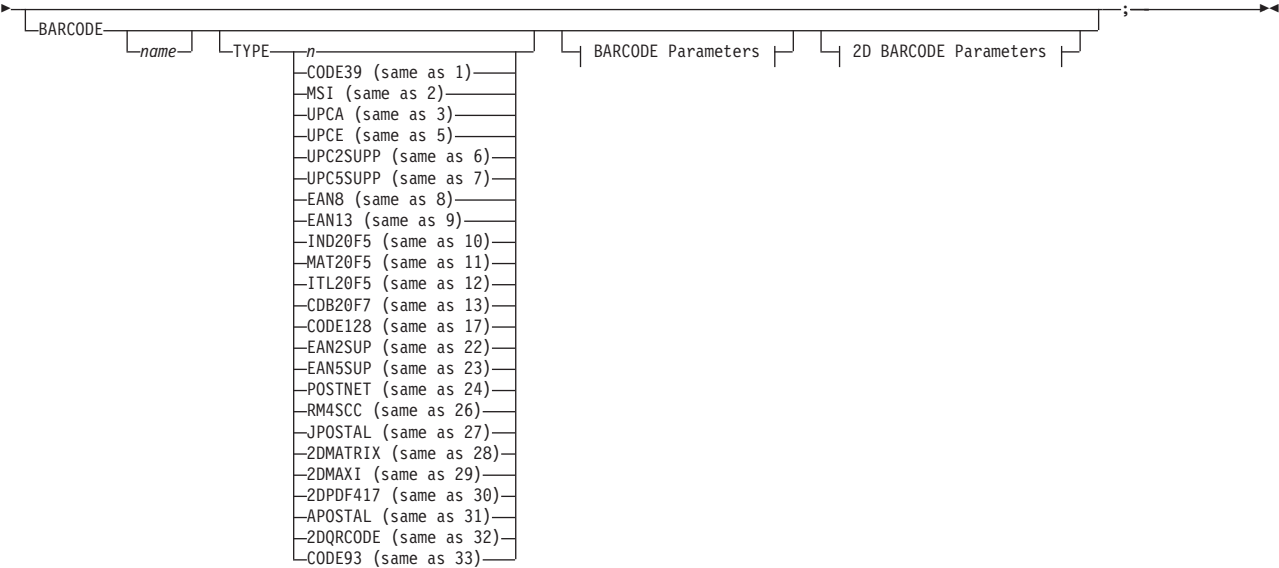
QR CODE 2D Parameters:



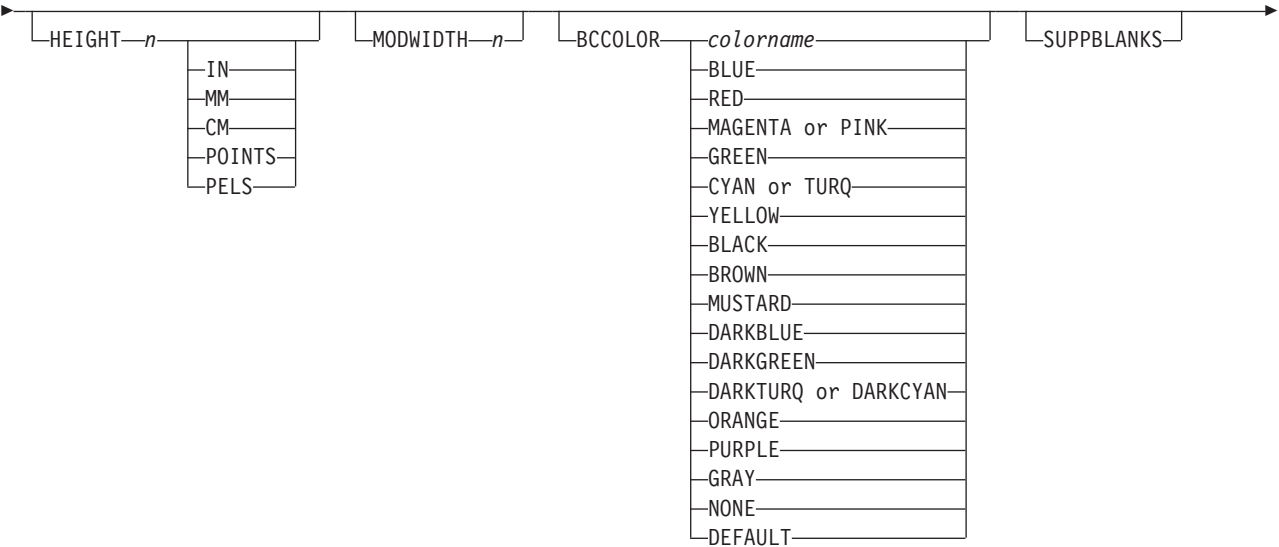
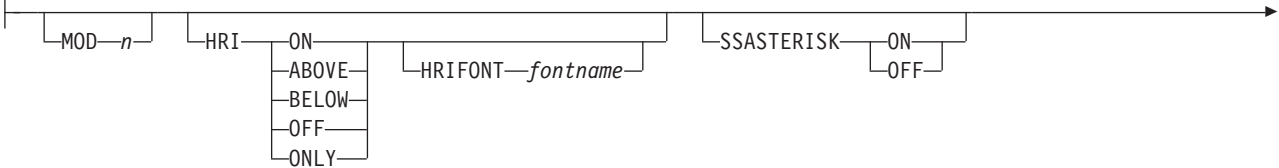
FIELD Command (XML)

FIELD Command (XML)

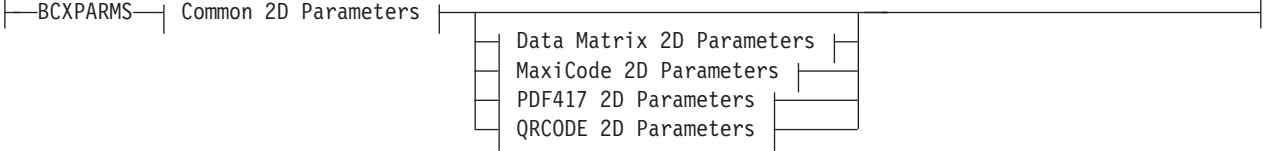




BARCODE Parameters:

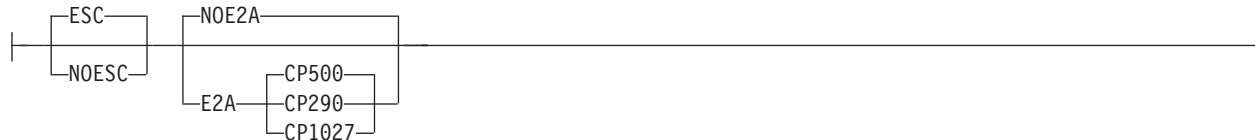


2D BARCODE Parameters:

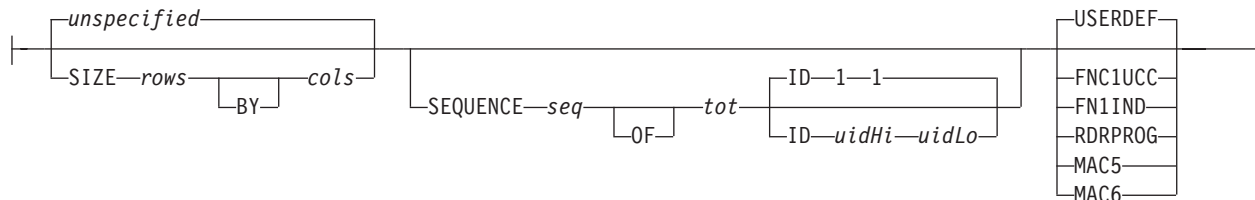


Page Definition Command (Record Formatting and XML)

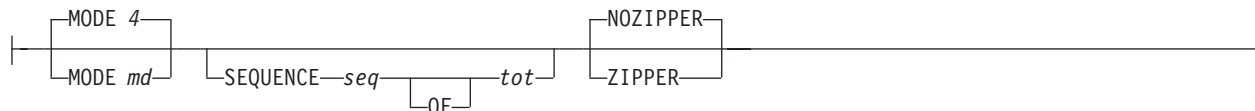
Common 2D Parameters:



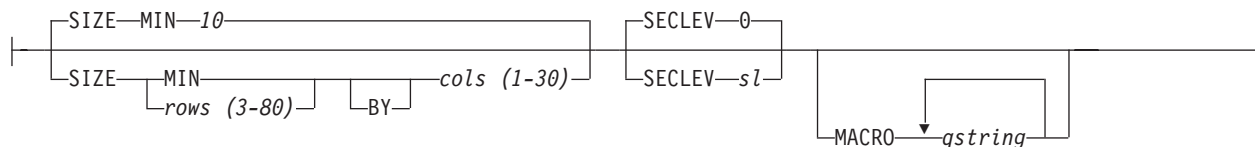
Data Matrix 2D Parameters:



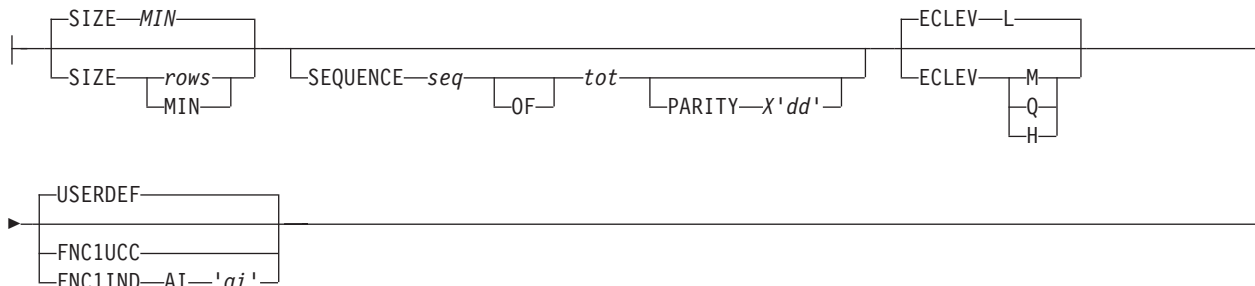
MaxiCode 2D Parameters:



PDF417 2D Parameters:

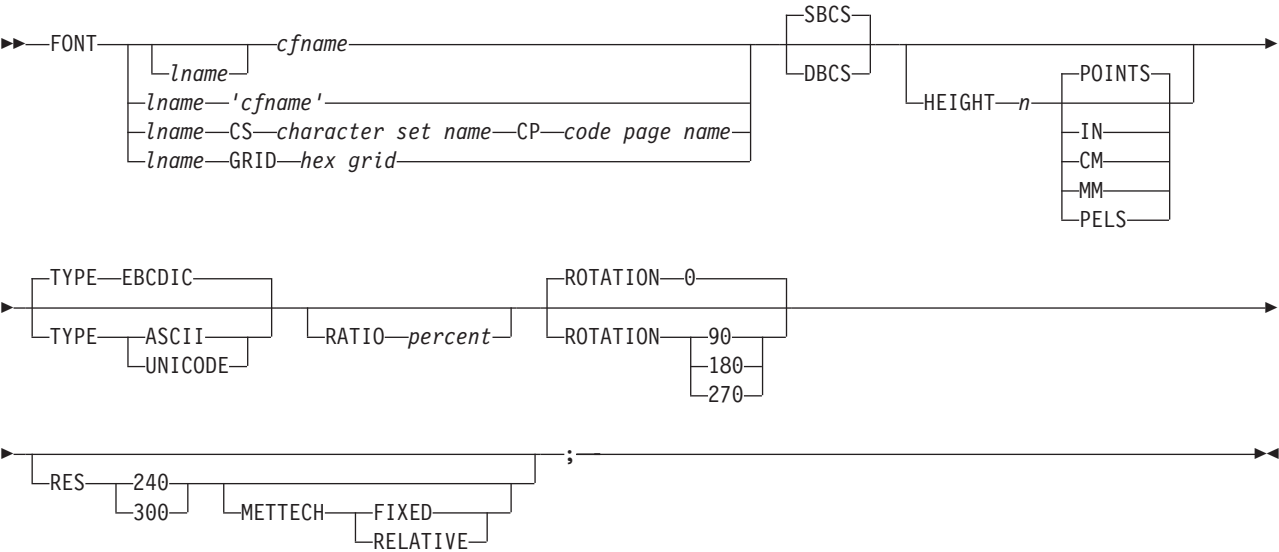


QRCODE 2D Parameters:



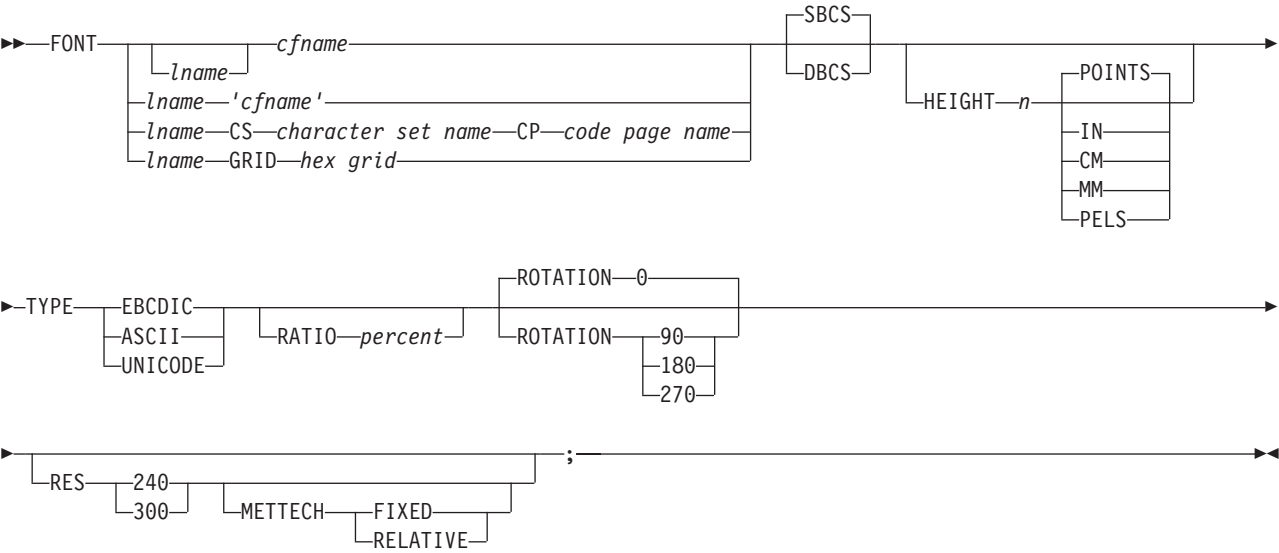
FONT Command (Record Format)

FONT Command



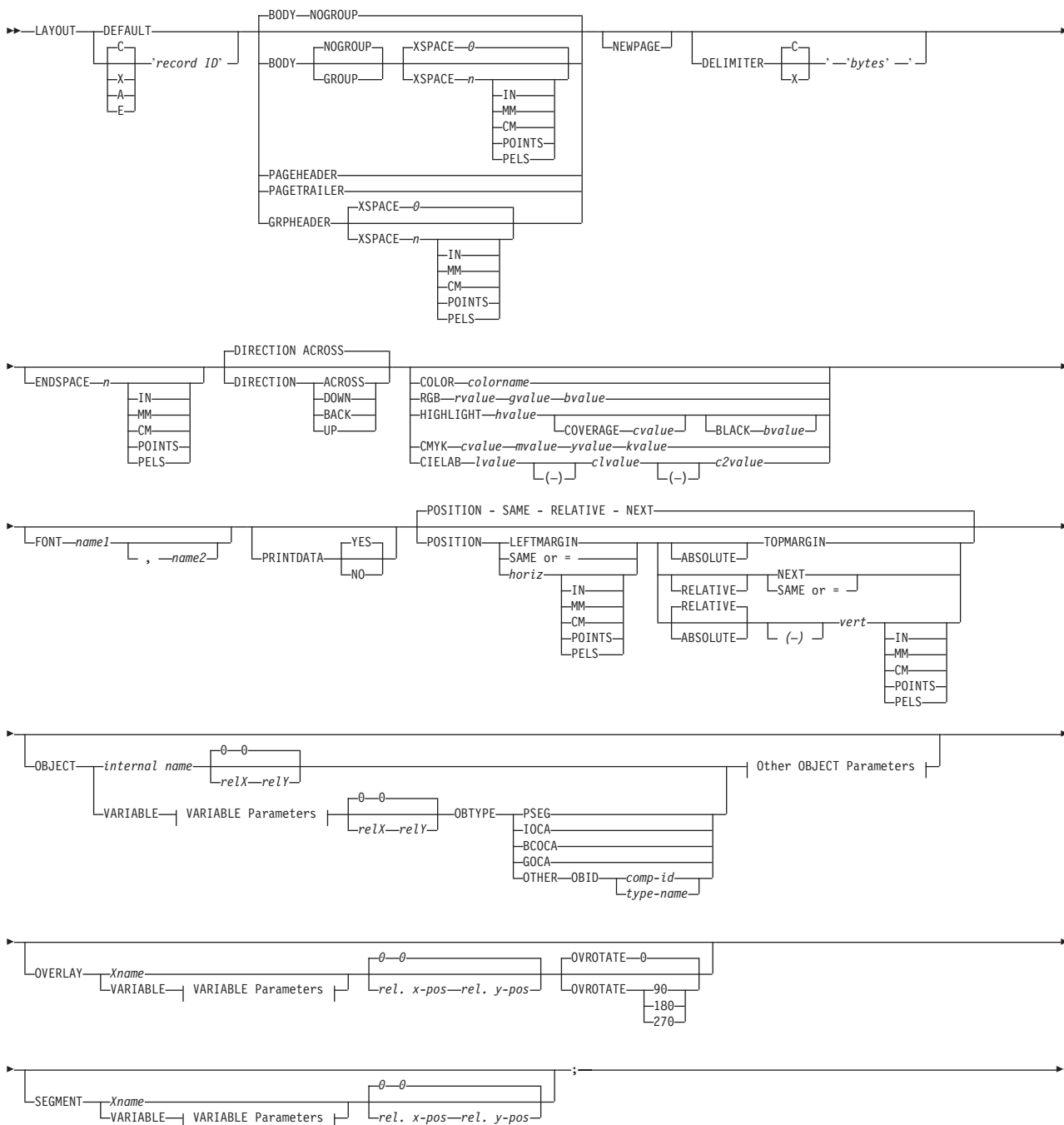
FONT Command (XML)

FONT Command

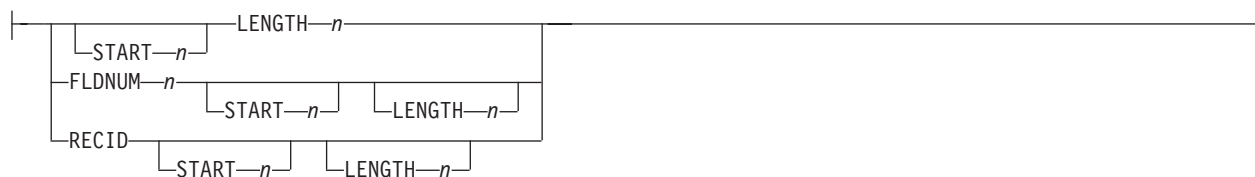


LAYOUT Command (Record Format)

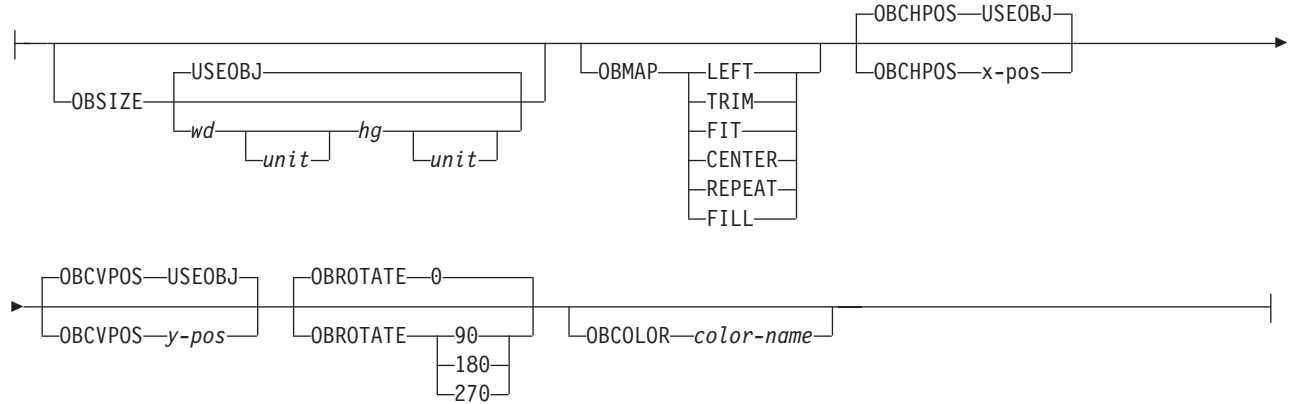
LAYOUT Command (Record Format)



VARIABLE Parameters:

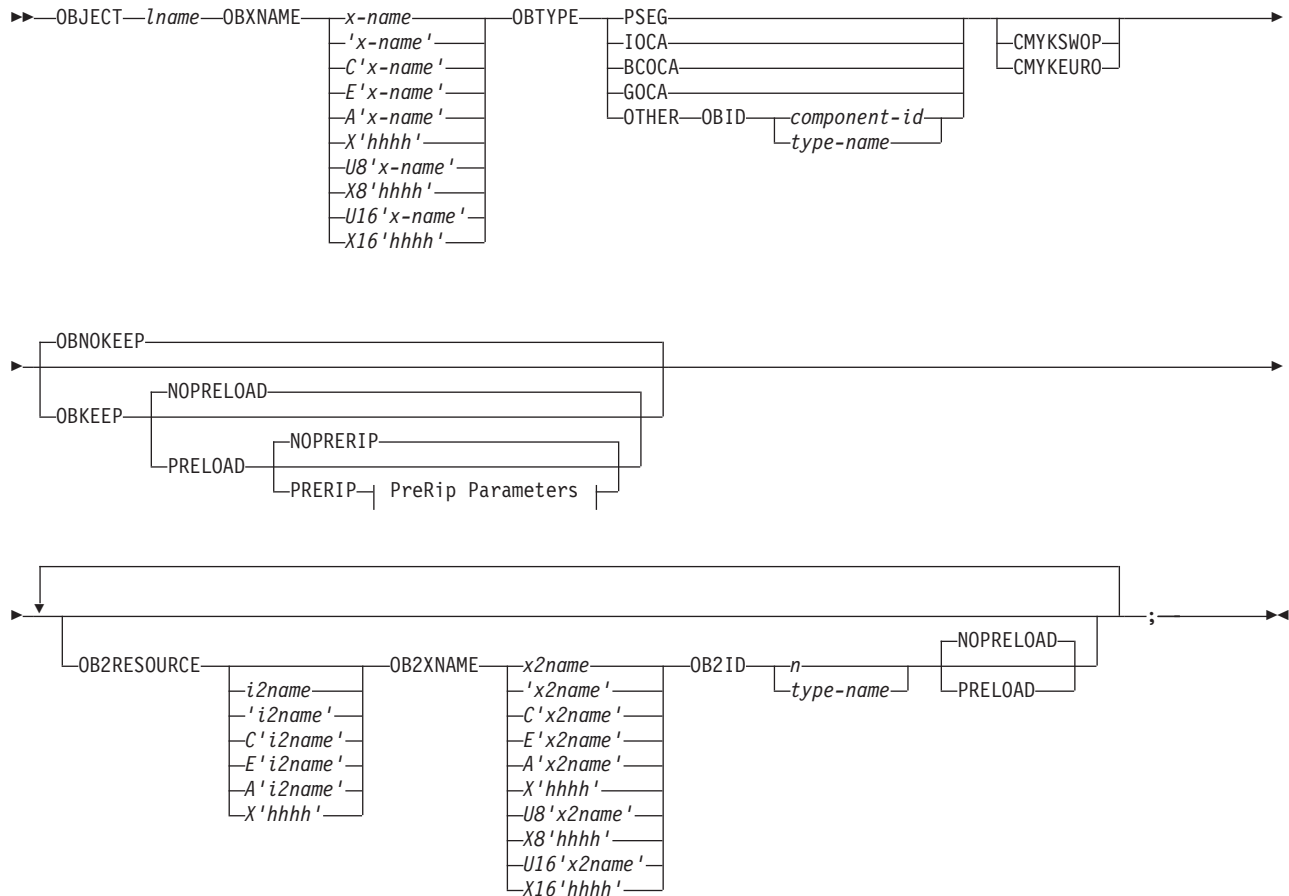


Other OBJECT Parameters:



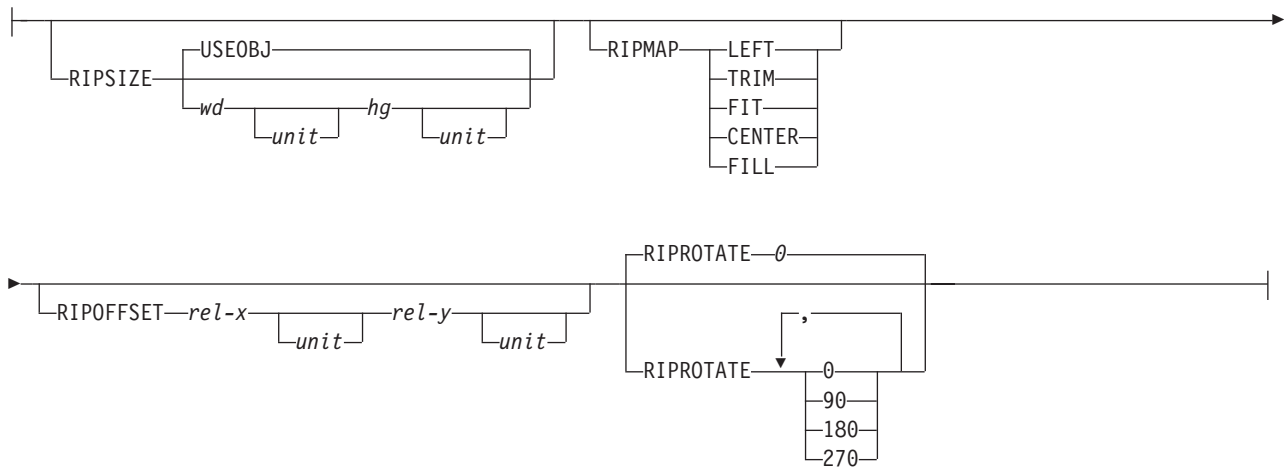
OBJECT Command (Record Format and XML)

OBJECT Command



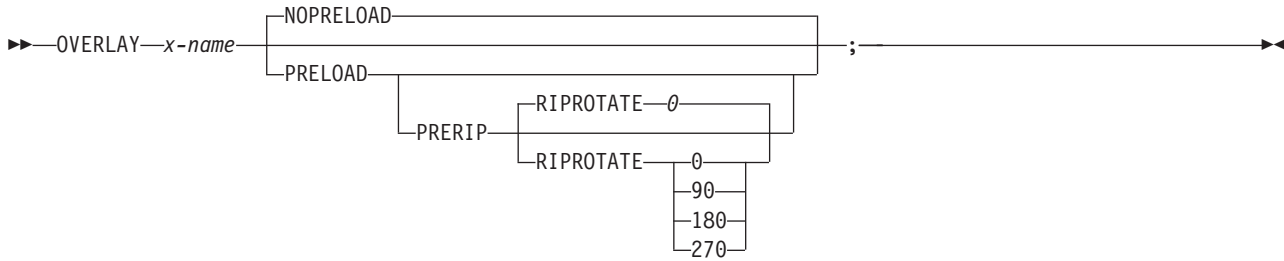
PreRip Parameters:

Page Definition Command (Record Formatting and XML)



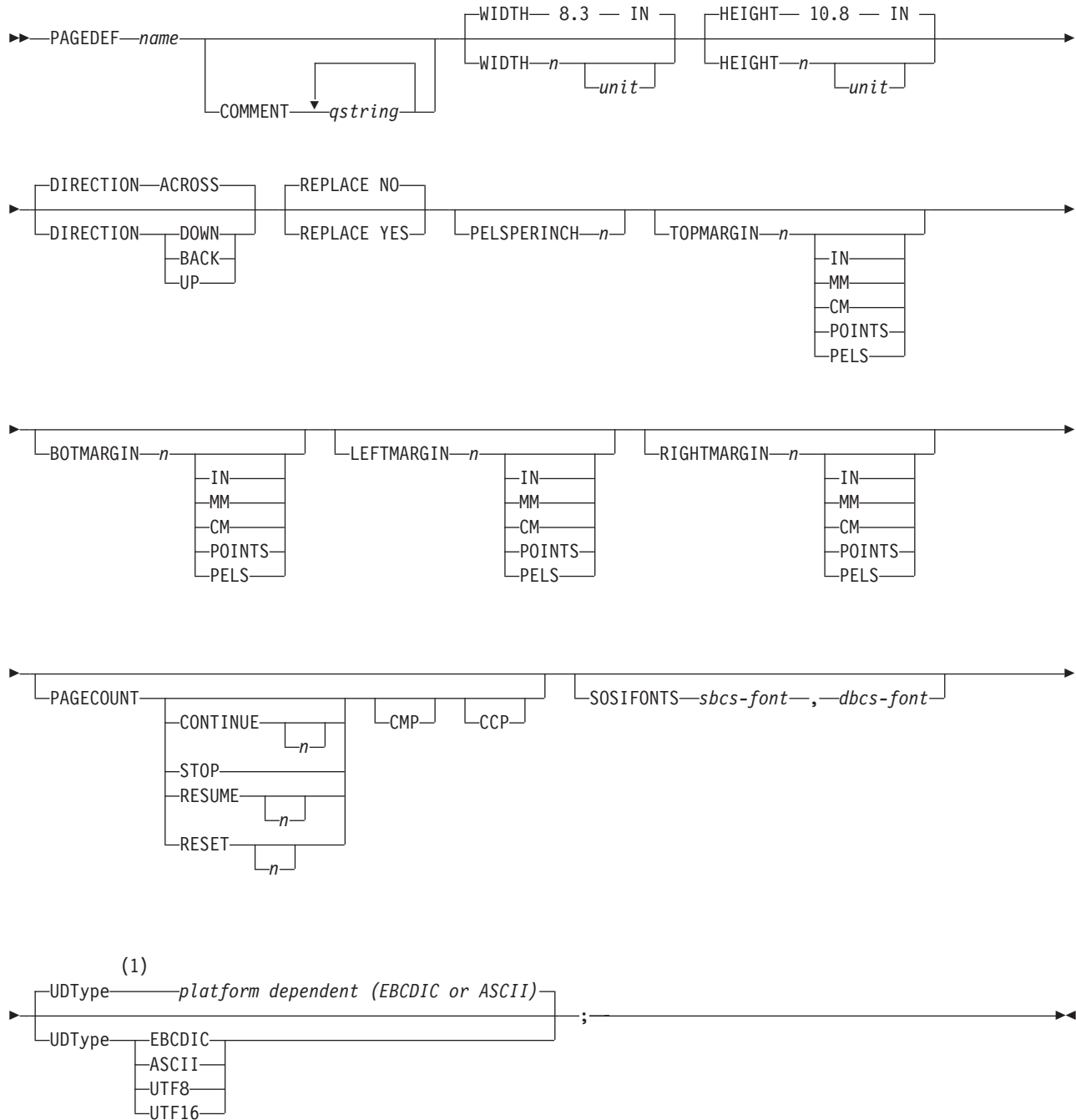
OVERLAY Command (Record Format and XML)

OVERLAY Command



PAGEDEF Command (Record Format and XML)

PAGEDEF Command

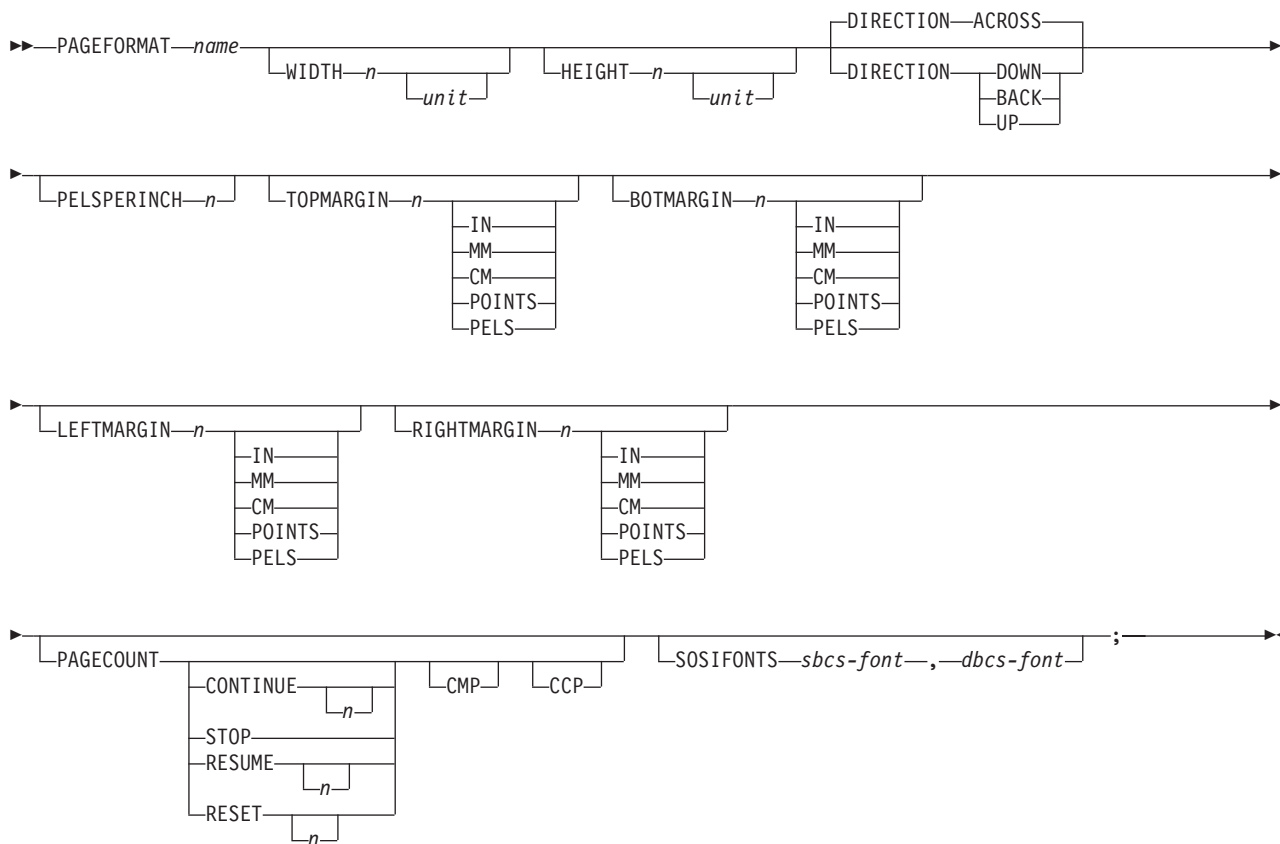


Notes:

- 1 **UDType** is valid only as an XML page definition.

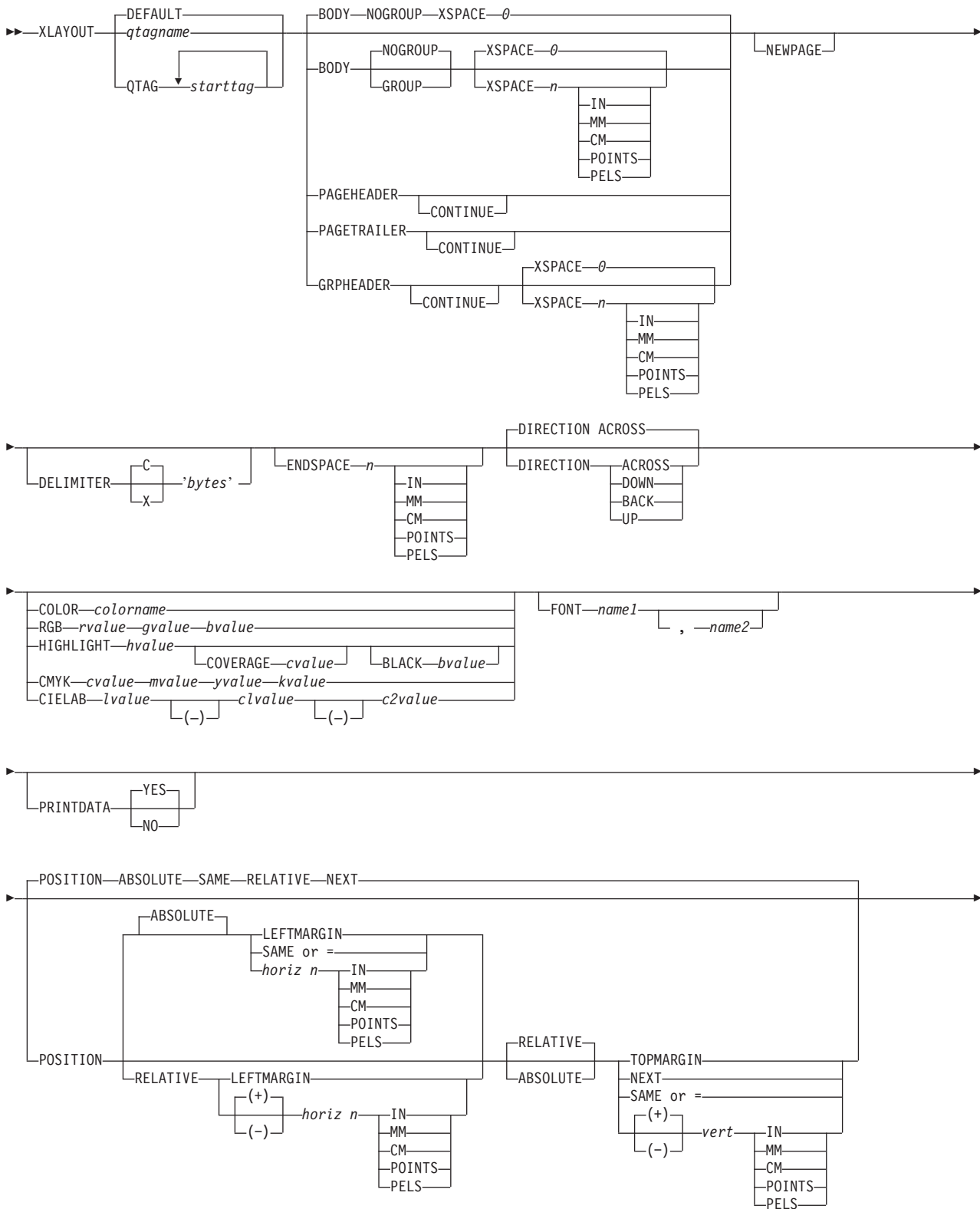
PAGEFORMAT Command (Record Format and XML)

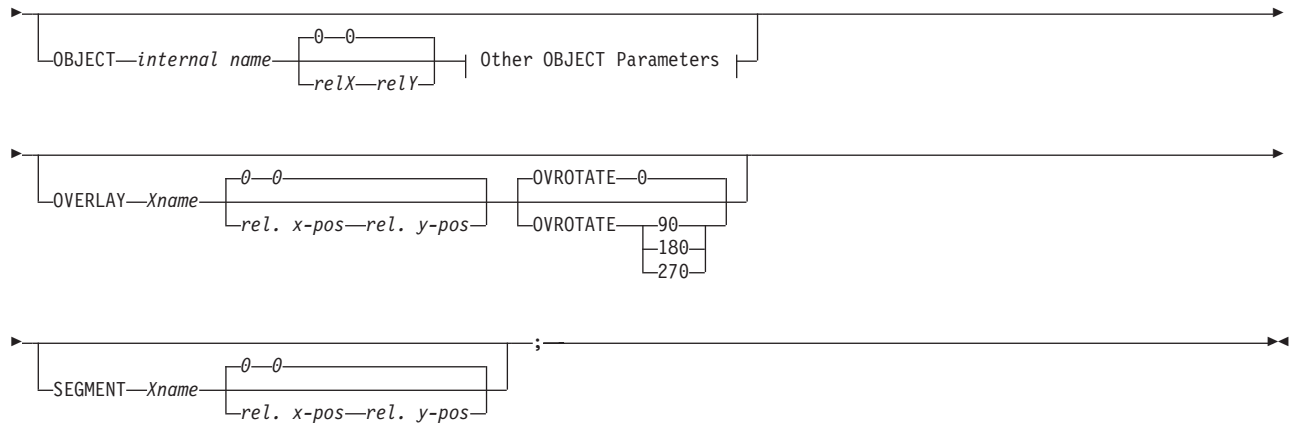
PAGEFORMAT Command



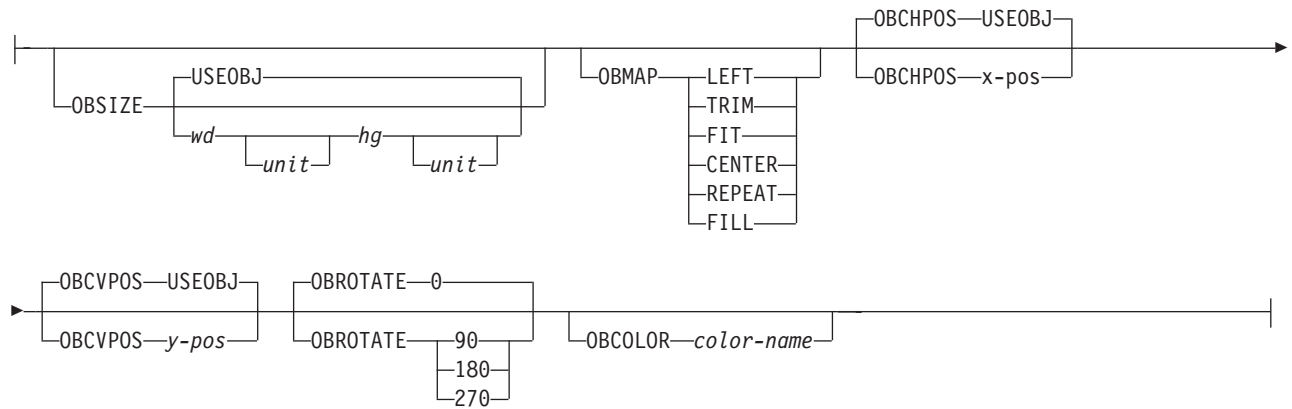
XLAYOUT Command (XML)

XLAYOUT Command





Other OBJECT Parameters:



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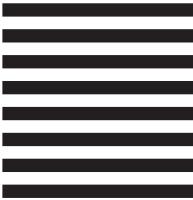
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