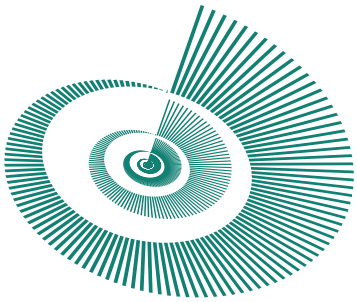
PostScript extra library



ver 2.11 update 20181025

PostScript Extra library

Constants

Name	Type	Description
_ver	string	The current version
_revision	string	The current version release date

Commands and functions

No	Name	Syntax	Description
1.	psx.verctrl	`<version> psx.verctrl ⇒ -`	Checks the library version against <version> and quits with an error message if less
2.	printPSXVersion	`printPSXVersion ⇒ -`	Produces a page with the product name, version and release date
3.	ltrim	`<s1> ltrim ⇒ <s2>`	Trims s1 of leading spaces
4.	rtrim	`<s1> rtrim ⇒ <s2>`	Trims s1 of trailing spaces
5.	toUppercase	`<s1> toUppercase ⇒ <s2>`	Converts <s1> to upper case
6.	cats	`<s1> <s2> cats ⇒ <s>`	Concatenates <s1> and <s2> into <s>
7.	cats=	`</s1> <s2> cats= ⇒ -`	Concatenates </s1> and <s2> into </s1>; </s1> must be a lvalue name
8.	cvsx	`<number> cvsx ⇒ <string>`	Converts <number> to <string>

9.	mm	<n> mm ⇒ <m>	Converts <n> in millimeters to <m> in points
10.	in	<n> in ⇒ <m>	Converts <n> in inches to <m> in points
11.	mmv, inv	<verticalPosition> mmv ⇒ <vpos> <verticalPosition> inv ⇒ <vpos>	Converts vertical position in millimeters or inches measured from the upper edge to points measured from the lower edge
12.	++	</variable> ++ ⇒ -	Perform C-style increment, decrement, conversion to integer, negation of /variable
13.	--	</variable> -- ⇒ -	
14.	cvi=	</variable> cvi= ⇒ -	
15.	neg=	</variable> neg= ⇒ -	
16.	add=	</variable> <operand> add= ⇒ -	Perform C-style compound addition, subtraction, multiplication, division and modulo into /variable
17.	sub=	</variable> <operand> sub= ⇒ -	
18.	mul=	</variable> <operand> mul= ⇒ -	
19.	div=	</variable> <operand> div= ⇒ -	
20.	mod=	</variable> <operand> mod= ⇒ -	

21.	coalesce	`</variable> <value> coalesce ⇒ -`	coalesce operator Defines a variable with a default value unless already defined
22.	formatInteger	`<number> <length> formatInteger ⇒ <s>`	Formats a non-negative integer into <length> characters with leading zeroes.
23.	hexdump	`<s1> hexdump ⇒ <s2>`	Formats a string to hexadecimal dump.
24.	formatCurr	`<s1> formatCurr ⇒ <s2>`	Formats a numeric string with 2 decimal positions (currency).
25.	setFilePaths	`<folder names array> setFilePaths ⇒ -`	Sets the file search paths list
26.	findFile	`<filename> findFile ⇒` `false | <canonical file name> true`	Searches a file using the file search paths list; Returns false if not found or the full (canonical) file name and true otherwise
27.	xpSubst	`<s1> xpSubst ⇒ <s2>`	Substitutes expressions that are embedded into s1 with their results. Embedded expressions must be delimited in an ASP-like style like `<%= exp =%>`
28.	gray	`<percentage> gray ⇒ -`	Sets the current foreground color to <percentage> gray. <percentage> is between 0 and 100
29.	black	`black ⇒ -`	Sets the current foreground color to black
30.	white	`white ⇒ -`	Sets the current foreground color to white
31.	setMediaSize	`<width> <height> setMediaSize ⇒ -` `<predefined size> setMediaSize ⇒ -`	Sets the current media size
32.	setMediaByName	`<media name> setMediaByName ⇒ -`	Sets the current media by name

33.	setMediaByColor	`<media name> setMediaByColor ⇒ -`	Sets the current media by color
34.	setPaperTray	`<tray number> setPaperTray ⇒ -`	Sets the current paper tray
35.	setDuplex	`<true|false> setDuplex ⇒ -`	Sets duplex printing on or off
36.	jogOutput	`jogOutput ⇒ -`	Offsets the output stack
37.	initPageNumber	`<n> initPageNumber ⇒ -`	Initializes the page numbering sequence from <n> for placePageNumber
38.	placePageNumber	`<X> <Y> placePageNumber ⇒ -`	Prints the current page number at coordinates <X> <Y>
39.	placeEPS	`<epsfile> <scale> <X> <Y> placeEPS ⇒ -`	Places a <scale>-d <epsfile> image at <X> <Y> coordinates
40.	setBackground	`<epsfile> setBackground ⇒ -`	Places <epsfile> as a full page background
41.	cropMark	`<X> <Y> cropMark ⇒ -`	Prints a crop mark (hairline cross in a circle) at <X> <Y> coordinates
42.	textOut	`<text> <X> <Y> textOut ⇒ -`	Prints left-aligned <text> at <X> <Y> coordinates using the current font
43.	textOutW	`<text> <X> <Y> <maxWidth> textOutW ⇒ -`	Prints left-aligned <text> at <X> <Y> coordinates not wider than <maxWidth>
44.	rtextOut	`<text> <X> <Y> rtextOut ⇒ -`	Prints right-aligned <text> at <X> <Y> coordinates using the current font

45.	ctextOut	`<text> <X> <Y> ctextOut ⇒ -`	Prints centered <text> at <X> <Y> coordinates using the current font
46.	lvTextOut	`<text> <X> <Y> lvTextOut ⇒ -`	Prints left-aligned vertical <text> at <X> <Y> coordinates using the current font
47.	rvTextOut	`<text> <X> <Y> rvTextOut ⇒ -`	Prints right-aligned vertical <text> at <X> <Y> coordinates using the current font
48.	angleTextOut	`<text> <angle> <X> <Y> angleTextOut ⇒ -`	Prints left-aligned <text> at <X> <Y> coordinates at <angle> using the current font
49.	bxLShow	`<string> <X> <Y> <step> bxLShow ⇒ -`	Prints left-aligned <text> at <X> <Y> coordinates using the current font with a fixed distance <step> between characters
50.	bxRShow	`<string> <X> <Y> <step> bxRShow ⇒ -`	Prints right-aligned <text> at <X> <Y> coordinates using the current font with a fixed distance <step> between characters
51.	OMR_INIT	`<X> <Y> OMR_INIT ⇒ -`	Sets the upper right corner coordinates of the first OMR mark to <X> and <Y>
52.	OMR_SAVE	`OMR_SAVE ⇒ <OMR state snapshot>`	Makes a snapshot of the current OMR state and places it on the stack
53.	OMR_RESTORE	`<OMR state snapshot> OMR_RESTORE ⇒ -`	Restores an OMR state from a snapshot
54.	OMR_DIR	`(LR)|(RL) OMR_DIR ⇒ -`	Sets the reading direction (LR – left to right or RL – right to left) RL is the default
55.	OMR_DRAW	`<group> <inserts> OMR_DRAW ⇒ -`	Draws an OMR image; Non-zero <group> forces a new envelope; <insert> controls insertion of leaflets in a bitwise manner
56.	OMR_PARTIAL	`<group> <inserts> OMR_PARTIAL ⇒ -`	Draws only the grouping and inserting marks of an OMR image; Does not affect the sequence

57.	setDefaultFieldSeparator	`<s> setDefaultFieldSeparator ⇒ -`	Sets the field separator for documentMerge
58.	setBufferSize	`<n> setBufferSize ⇒ -`	Sets the line buffer size for documentMerge
59.	documentMerge	`<var names array> <template file> documentMerge ⇒ -`	Performs database mode document merging by running <template file> for every subsequent line with fields assigned to the corresponding names from <var names array>. Database mode force-ends if ==END=OF=LINE=DATA== line is encountered.
60.	linePrinter	`<parametersDictionary> linePrinter ⇒ -`	Pints pre-formatted text lines. Line data must follow the linePrinter command and finish with ==END=OF=LINE=DATA== line. parametersDictionary contents: /firstPageX, /firstPageY, /nextPageX, /nextPageY, /vStep, /firstPageHeight, /nextPageHeight and a /beforePage callback method (optional). The /beforePage receives parametersDictionary on the stack when called. A /pageNo element (1-based) is added to parametersDictionary and updated by linePrinter.
61.	settextblock	`<parameters dictionary> settextblock ⇒`	Sets the parameters for text reflow and print by textblock. Keys/values: /X (upper left corner), /Y, /VS (vertical step b/w lines), /W (block width), /Align Possible /Align values: `/Align.left, /Align.right, /Align.centre, /Align.justify`
62.	textblock	`<s> textblock ⇒ -`	Reflows and prints <s> according to the parameters set by settextblock
63.	txtb.lf	`txtb.lf ⇒ -`	Performs linefeed in text block mode (calculates and assigns a new vertical position for the nest call of textblock)
64.	txtb.getX	txtb.getX ⇒ `<x>`	Returns the current horizontal position in text block mode
65.	txtb.getY	txtb.getY ⇒ `<y>`	Returns the current vertical position in text block mode
66.	manyTimes	`<brick> <mortar> <n> manyTimes ⇒ -`	Executes a pair of procedures in a brick-mortar manner, ie. if `n` is 3 then `brick-mortar-brick-mortar-brick`

67.	setbarcode	`<parameters dictionary> setbarcode ⇒ -`	Similar to `setpagedevice`. Configures the barcode writer device according to the contents of the parameters dictionary. Keys/values: /Height – the height of the barcode symbol; Default is 1 inch /Width – the width of the barcode symbol; Default is 1 pt per thin bar /Human.readable – may be `true` or `false` (default) /Encoding – `/Barcode.128B, /Barcode.128C, /Barcode.128D*, /Barcode.EAN13, /Barcode.I2OF5, /Barcode.I2OF5C or /Barcode.39 (the default)`
68.	barcode	`<s> barcode ⇒ -`	Prints s as barcode lower-left aligned at the current position
69.	setMultiUp	`<parameters dictionary> setMultiUp ⇒ -`	Similar to `setpagedevice`. Configures multi-up layout according to the contents of the parameters dictionary. Keys/values: /PagesWide – number of columns /PagesHigh – number of rows /ColumnWidth – column width /RowHeight – Row height
70.	adjustX	`<n> adjustX ⇒ <m>`	Multi-up mode - converts horizontal coordinate within the logical page to absolute horizontal coordinate within the physical page
71.	adjustY	`<n> adjustY ⇒ <m>`	Multi-up mode - converts vertical coordinate within the logical page to absolute vertical coordinate within the physical page
72.	nextSubPage	`nextSubPage ⇒ -`	Multi-up mode equivalent of `showpage`. Logical pages start from the upper-left corner of the physical sheet and advance first right then down (Z-order)
73.	multiUpEnd	`multiUpEnd ⇒ -`	Multi-up mode - flushes the last physical page (if partially full)
74.	slovom	`<n> slovom ⇒ <s>`	Converts a number into its textual representation as currency in the Bulgarian language
75.	strpad	`<s1> <length> <padding> strpad ⇒ <s2>`	Left pad a string to fixed length; `<padding>` must be long enough to cut from

76.	makeForm.A4	/<formName> <EPS-fname> makeForm.A4 ⇒ -	Creates an A4-size PostScript form from EPS file to be used with execform or execformx.
77.	execformx	<formName> execformx ⇒ - <formName> <dx> <dy> execformx ⇒ -	Without <dx> and <dy> - the same as <formName> execform With <dx> and <dy> - first <dx> <dy> translate then <formName> execform
78.	set.TL.params	<parameters dictionary> set.TL.params ⇒ -	Configures underline and strikethrough parameters Keys/values: /strikewidth – strikethrough line widt /underlinewidth – underline line widt /strikeascend – strikethrough ascend above baseline /underlinedescend – underline descend below baseline
79.	underlineTextOut	<text> <X> <Y> underlineTextOut ⇒ -	Prints left-aligned underlined <text> at <X> <Y> coordinates using the current font
80.	strikethroughTextOut	<text> <X> <Y> strikethroughTextOut ⇒ -	Prints left-aligned stricken-through <text> at <X> <Y> coordinates using the current font
81.	set.ITB.params	<parameters dictionary> set.ITB.params ⇒ -	Configures the inverse textbox parameters Keys/values: /height – the box height /width – the box width /background – background shade of gray b/w 0 and 1. 1 is black /foreground – foreground shade of gray b/w 0 and 1. 0 is white /font.face /font.size /ascend - text ascend above baseline
82.	set.ITB.font	set.ITB.font ⇒ -	Caches the specified font. Must be called at least once before callig inverseTextBox
83.	inverseTextBox	<text> inverseTextBox ⇒ -	Prints an inverse textbox at the current location

Deprecated			
1.	BC3OF9	`<s1> BC3OF9 ⇒ <s2>`	Encodes <s1> for barcode 3 of 9 printing. Requires font /MB17I Use `setbarcode` and `barcode` instead of `BC3OF9`
2.	BC3OF9CS	`<s1> BC3OF9CS ⇒ <s2>`	Encodes <s1> for barcode 3 of 9 printing with control symbol. Requires font /MB17I Use `setbarcode` and `barcode` instead of `BC3OF9CS`
3.	BC128C	`<s1> BC128C ⇒ <s2>`	Encodes <s1> for barcode Code-128C printing. Requires font /MB021 Use `setbarcode` and `barcode` instead of `BC128C`
4.	sdef	`<name> <value> sdef ⇒ -`	Defines <name> only if not already defined. The value persists between calls. Implements the behavior of a static variable definition. Use `store` instead of `sdef`

* `/Barcode.128D` is to be used for high density digits-only barcodes

Predefined media sizes

A4, A4L, A3, A3L, Letter, LetterL, Legal, LegalL

Hello world application

```
%!
A4 setMediaSize /Courier 12 selectfont
(Hello, PSX world!) 105 mm 20 mmv ctextOut
printPSXVersion
```