–	**[**	mark	
mark e1 ... eN	**]**	array	
any	**=**	–	
any	**==**	–	
num	**abs**	|num|	
num1 num2	**add**	num1+num2	
array	**aload**	e1 ... eN array	
string seek	**anchorsearch**	spost smatch true	*found*
		string false	*not found*
a b	**and**	a&b	*logical or bitwise*
x y r ang1 ang2	**arc**	–	
x y r ang1 ang2	**arcn**	–	
x1 y1 x2 y2 r	**arcto**	xt1 yt1 xt2 yt2	
size	**array**	array	
ax ay string	**ashow**	–	
e1 ... eN array	**astore**	array	
x y	**atan**	angle	*0..360*
cx cy char ax ay string	**awidthshow**	–	
matrix w h proc	**banddevice**	–	
dict	**begin**	–	
proc	**bind**	proc	
int shift	**bitshift**	int>>shift	*right: +, left: -*
file	**bytesavailable**	int	*-1 => EOF or unknown*
–	**cachestatus**	Bs Bm Ms Mm Cs Cm blimit	
number	**ceiling**	integer	
string strokepath-bool	**charpath**	–	
|– any ...	**clear**	|–	
mark obj ...	**cleartomark**	–	
–	**clip**	–	
–	**clippath**	–	
file	**closefile**	–	
–	**closepath**	–	
matrix	**concat**	–	
mtrx1 mtrx2 mtrx3	**concatmatrix**	mtrx3	*=mtrx1*mtrx2*
a1 ... aN N	**copy**	a1 ... aN a1 ... aN	
obj1 obj2	**copy**	obj2	*array, dict, string*
–	**copypage**	–	
angle	**cos**	cosine(a)	
|– any1 ... anyN	**count**	|– any1 ... anyN N	
–	**countdictstack**	count	
–	**countexecstack**	count	
mark obj1 ... objN	**counttomark**	mark obj1 ... objN N	
–	**currentcacheparams**	mark lower upper	*V 38.0*
–	**currentdash**	array offset	
–	**currentdict**	dict	
–	**currentfile**	file	
–	**currentflat**	number	
–	**currentfont**	font	
–	**currentgray**	number	
–	**currenthsbcolor**	hue sat bright	
–	**currentlinecap**	integer	
–	**currentlinejoin**	integer	
–	**currentlinewidth**	number	
matrix	**currentmatrix**	CTM-matrix	
–	**currentmiterlimit**	number	
–	**currentpacking**	bool	*V 38.0*
–	**currentpoint**	x y	
–	**currentrgbcolor**	red green blue	
–	**currentscreen**	freq angle spot-func	
–	**currenttransfer**	gray-tansf-func	
x1 y1 x2 y2 x3 y3	**curveto**	–	

num|string	**cvi**	int	
any	**cvlit**	any	
string	**cvn**	name	
num|string	**cvr**	real	
num base string	**cvrs**	substring	
any string	**cvs**	substring	
any	**cvx**	any	
key value	**def**	–	
matrix	**defaultmatrix**	def-matrix	
key font	**definefont**	font	
size	**dict**	dict	
array	**dictstack**	subarray	
num1 num2	**div**	num1/num2	
dx dy	**dtransform**	dxt dyt	
dx dy matrix	**dtransform**	dxt dyt	
any	**dup**	any any	
bool	**echo**	–	
–	**end**	–	
–	**eoclip**	–	
–	**eofill**	–	
any1 any2	**eq**	bool	*true iff any1=any2*
–	**erasepage**	–	
any1 any2	**exch**	any2 any1	
any	**exec**	–	
array	**execstack**	subarray	
obj	**executeonly**	obj	*array, file, string*
–	**exit**	–	
base exp	**exp**	base**exp	
name (r)|(w)	**file**	file	
–	**fill**	–	
key	**findfont**	font	
–	**flattenpath**	–	
number	**floor**	int	
–	**flush**	–	
file	**flushfile**	–	
init incr limit proc	**for**	–	
obj proc	**forall**	–	*array, dict, string*
matrix wd ht proc	**framedevice**	–	
a b	**ge**	a>=b	*numeric or string*
obj index	**get**	element	*array, dict, string*
array|string start count	**getinterval**	subarray|substring	
–	**grestore**	–	
–	**grestoreall**	–	
–	**gsave**	–	
a b	**gt**	a>b	*numeric or string*
matrix	**identmatrix**	id-transf-matrix	
int1 int2	**idiv**	quotient	*integer divide*
dxt dyt	**idtransform**	dx dy	
dxt dyt matrix	**idtransform**	dx dy	
bool proc	**if**	–	
bool proc1 proc2	**ifelse**	–	
wd ht bits mtrx proc	**image**	–	
wd ht invrt mtrx proc	**imagemask**	–	
aN ... a0 N	**index**	aN ... a0 aN	
–	**initclip**	–	
–	**initgraphics**	–	
–	**initmatrix**	–	
matrix1 matrix2	**invertmatrix**	martix2	
xt yt	**itransform**	x y	
xt yt matrix	**itransform**	x y	
dict key	**known**	bool	

proc string	**kshow**	–	
a b	**le**	a<=b	*numeric or string*
obj	**length**	length	*array, dict, string*
x y	**lineto**	–	
num	**ln**	real	*base e*
key	**load**	value	
num	**log**	real	*base 10*
proc	**loop**	–	
a b	**lt**	a<b	*numeric or string*
font matrix	**makefont**	font	
–	**mark**	mark	
–	**matrix**	matrix	
dict	**maxlength**	int	
int1 int2	**mod**	remainder	*integer remainder*
x y	**moveto**	–	
num1 num2	**mul**	num1*num2	
any1 any2	**ne**	bool	*false iff any1=any2*
num	**neg**	-num	
–	**newpath**	–	
obj	**noaccess**	obj	*array, dict, file, string*
a	**not**	!a	*logical or bitwise*
–	**null**	null	
–	**nulldevice**	–	
a b	**or**	a|b	*logical or bitwise*
e1 ... eN N	**packedarray**	packedarray	*V 38.0*
–	**pathbbox**	llx lly urx ury	
move line curve close	**pathforall**	–	
any	**pop**	–	
string	**print**	–	
–	**prompt**	–	
|– any ...	**pstack**	|– any ...	
obj index element	**put**	–	*array, dict, string*
obj1 index obj2	**putinterval**	–	*array, string*
–	**quit**	–	
–	**rand**	int	
obj	**rcheck**	bool	*true iff readable*
dx1 dy1 dx2 dy2 dx3 dy3	**rcurveto**	–	
file	**read**	byte true	
		false	*EOF*
file string	**readhexstring**	substring bool	
file string	**readline**	substring bool	
obj	**readonly**	obj	*array, dict, file, string*
file string	**readstring**	substring bool	
proc	**renderbands**	–	
count proc	**repeat**	–	
file	**resetfile**	–	
save-obj	**restore**	–	
–	**reversepath**	–	
dx dy	**rlineto**	–	
dx dy	**rmoveto**	–	
aN-1 ... a0 N J	**roll**	aJ-1 ... a0 aN-1 ... aJ	*+J up, -J down*
a b c d 4 -1	**roll**	b c d a	*example*
angle	**rotate**	–	
angle matrix	**rotate**	matrix	
num1	**round**	num2	
–	**rrand**	seed	
string	**run**	–	
–	**save**	save-obj	
sx sy	**scale**	–	
sx sy matrix	**scale**	matrix	
font factor	**scalefont**	font	

Operands	Operator	Results	Notes
string seek	**search**	post match pre true	*found*
		string false	*not found*
wx wy llx lly urx ury	**setcachedevice**	–	
maxbytes	**setcachelimit**	–	
mark lower upper	**setcacheparams**	–	*V 38.0*
wx wy	**setcharwidth**	–	
array offset	**setdash**	–	
num	**setflat**	–	
font	**setfont**	–	
num	**setgray**	–	
hue sat bright	**sethsbcolor**	–	
integer	**setlinecap**	–	
integer	**setlinejoin**	–	
num	**setlinewidth**	–	
matrix	**setmatrix**	–	
num	**setmiterlimit**	–	
bool	**setpacking**	–	*V 38.0*
red green blue	**setrgbcolor**	–	
freq angle spot-func	**setscreen**	–	
gray-transfer-func	**settransfer**	–	
string	**show**	–	
–	**showpage**	–	
num	**sin**	sine(num)	
num	**sqrt**	real	
int	**srand**	–	
|– any ...	**stack**	|– any ...	
–	**start**	–	
file	**status**	bool	*true if open*
–	**stop**	–	
any	**stopped**	bool	*true if "stop"-ed*
key value	**store**	–	
int	**string**	string	
string	**stringwidth**	wx wy	
–	**stroke**	–	
–	**strokepath**	–	
num1 num2	**sub**	num1-num2	
file	**token**	any true	*found*
		false	*not found*
string	**token**	s-post any true	*found*
		false	*not found*
x y	**transform**	xt yt	
x y matrix	**transform**	xt yt	
tx ty	**translate**	–	
tx ty matrix	**translate**	matrix	
num	**truncate**	num-truncated	
any	**type**	name	
–	**usertime**	time-in-msecs	
–	**version**	PS-version-string	
–	**vmstatus**	depth bytes-used total-bytes-avail	
obj	**wcheck**	bool	*true iff writable*
key	**where**	dict true	*found*
		false	*not found*
cx cy char string	**widthshow**	–	
file byte	**write**	–	
file string	**writehexstring**	–	
file string	**writestring**	–	
any	**xcheck**	bool	*true iff executable*
a b	**xor**	a-xor-b	*logical or bitwise*

########## Defined in **serverdict**

Operands	Operator	Results	Notes
password	**exitserver**	–	

########## Defined in **statusdict** (LaserWriter) *‡ requires exitserver*

Operands	Operator	Results	Notes
–	**appletalktype**	string	*V 38.0*
int	**checkpassword**	bool	
–	**defaulttimeouts**	job manualfeed wait	
–	**dostartpage**	bool	
–	**eescratch**	index value	
–	**idlefonts**	mark font sx sy rot nchars ...	
–	**jobname**	string	
–	**jobtimeout**	int	
–	**manualfeed**	bool	
–	**manualfeedtimeout**	int	
–	**margins**	top left	
–	**pagecount**	int	
–	**pagestackorder**	bool	
–	**pagetype**	int	
–	**prefeed**	bool	*V 23.0*
status tries	**printererror**	–	
string	**printername**	substring	
–	**product**	string	
–	**revision**	int	
channel	**sccbatch**	baud parity	
channel	**sccinteractive**	baud parity	
job manualfeed wait	**setdefaulttimeouts**	–	‡
bool	**setdostartpage**	–	‡
index value	**seteescratch**	–	‡
mark font sx sy rot nchars ...	**setidlefonts**	–	‡
int	**setjobtimeout**	–	
top left	**setmargins**	–	‡
int	**setpagetype**	–	‡
old new	**setpassword**	bool	
string	**setprintername**	–	‡
channel baud parity	**setsccbatch**	–	‡
channel baud parity	**setsccinteractive**	–	‡
–	**waittimeout**	int	

######### Defined in **errordict**

dictfull
dictstackoverflow
dictstackunderflow
execstackoverflow
handleerror *can look at $error*
interrupt
invalidaccess
invalidexit
invalidfileaccess
invalidfont
invalidrestore
ioerror
nocurrentpoint
rangecheck
stackoverflow
stackunderflow
syntaxerror
timeout
typecheck
undefined
undefinedfilename
undefinedresult
unmatchedmark
unregistered
VMerror

######### Defined in **$error** *after error*

newerror bool
errorname name
command any
ostack array
estack array
dstack array

################# **Comment Conventions** ###################

First line of file

	%!	*Beginning of ALL PostScript files*
	%!PS-Adobe-	*Beginning of †minimally-conforming files*
	%!PS-Adobe-1.0	*Beginning of fully-conforming files*

Header Comments

†	**%%DocumentFonts:** font1 ...	*or (atend)*
	%%Title: title	
	%%Creator: text	
	%%CreationDate: text	
	%%For: text	
	%%Pages: number	*or (atend)*
	%%BoundingBox: llX llY urX urY	*or (atend)*
	%%EndComments	

Body Comments

†	**%%EndProlog**
†	**%%Page:** label ordinal
	%%PageFonts: font1 ...
†	**%%Trailer**

Trailer Comments *if not in header*

†	**%%DocumentFonts:** font1 ...
	%%Pages: number
	%%BoundingBox: llX llY urX urY