

site rectangle in source graphics state with image in current window

estywidth height opcompositerect composite rectangle of current color and coverage with image in current graphics state

ywidth height srcgstate

estydeltadissolve dissolve between area of window referred to by srcgstate and equal area of window referred to by current graphics state

vcurrentwindowalpha statereturn information about how window's alpha values are stored

th height proc0[... procn-1]

oolreadimage read image's pixel values and pass to corresponding procedures

th height matrixsizeimage pixelswide pixelshigh bits/sample matrix multiproc ncolors

get various parameters required for readimage to read the image

vide pixelshigh bits/sample

proc0[... procn] multiproc

alphaimage render data and alpha information supplied by one or more procedures

tance remove instance drawing from current window

instance turn instance-drawing mode on or off

th heighthideinstance remove instance drawing from rectangle

down booltest whether left/only mouse button is down

ttontdown booltest whether right mouse button is down

mouse set mouse and cursor location

djustcursor adjust cursor location by (dx, dy)

mysetcursor set cursor to image with upper left at
nd hot spot at offset (mx, my) from (x, y).

rsor remove cursor from screen

bool userdata trect tmin gstate settrackingrect set tracking rectangle in window referred to by gstate
m gstate cleartrackingrect clear tracking rectangle in gstate

Window's Server-level event mask *

GetCurrentEventMask mask return window's current Server-level event mask *

Window's time flags window

PostEventByContext context post event to specified context

WindowSetSendExposed set whether window-changed events are generated for exposed window areas *

FlushExposures set whether window-exposed and screen-changed subevents are flushed *

ContextSetWaitCursorEnabled enable or disable wait cursor operation

GetCurrentWaitCursorEnabled bool

return status of wait cursor in context

SetActiveApp establish application having context as the active application*

GetActiveApp context return context of active application *

GetFrameBuffers count return number of frame buffers in use

GetCurrentFrameBufferTransfer redproc greenproc blueproc grayproc

return current transfer function for fbnum

GetFrameBuffer name slot unit romid x y width height maxdepth

provide information on specific frame buffer

SetFrameBufferTransfer greenproc blueproc

SetFrameBufferTransfer fbnum set the transfer function for fbnum

RemoveWindowFromScreenList cause eventual freeing *

WindowSetWindowType set window's type to type

WindowDevice set device of current graphics state to window

WindowDeviceRound set device to window and round coordinate system to integer pixels

WindowWindow return window number of current device

SetExposureColor set exposure color for nonretained window of current graphics state

FlushDrawingInBufferedWindowToScreen

OrderWindow window order window order Above or Below otherwindow (0 for all) or Out of screen list *

WindowSetWindowLevel set window tier for window to level

GetCurrentWindowLevel level return window tier for window

WindowWindow return frontmost window *

WindowPlaceWindow width height window place window reposition and resize with intersecting pixels unchanged *

WindowMoveWindow move lower left to screen coordinates (x, y) *

countscreenlist countreturn number of windows in screen list that belong to context
contextscreenlist subarrayreturn window numbers of all windows in screen list that belong to context
contextwindowlist subarrayreturn window numbers of all windows that belong to context
contextwindowsetowner set owning PostScript context of window to context
contextwindowcurrentowner contextreturn PostScript context that owns window
contextwindowcurrentdeviceinfo min max bool
contextwindowreturn window's sampling density and whether it is a PPD *
contextwindowdefaultdepthlimit set depth limit for new windows *
contextwindowdefaultdepthlimit depth
contextwindowreturn depth limit for new windows *
contextwindowcurrentwindowdepth depthreturn window's depth *
contextwindowsetwindowdepthlimit set window's depth limit *
contextwindowcurrentwindowdepthlimit depth
contextwindowreturn window's depth limit *
contextwindowlevel windowdumpwindow report position and number of bytes of backing store for window *
contextwindowlevel contextdumpwindows report position and number of bytes of backing store for all windows owned by context *
contextwindowosintreturn category of operating system (1=standalone, 3=UNIX)
contextwindowosname stringreturn name of operating system

top element
any2exch any2any1exchange top two elements
any any anyduplicate top element
any any anynncopy any1... anynany1... anyn
duplicate top n elements
any0nindex anyn... any0anynduplicate arbitrary element
a0n jroll a(j-1) mod n... a0an-1... aj mod n
roll n elements up j times
. anynclear |discard all elements
. anyncount |any1... anynncount elements on stack
markpush mark on stack
obj1... objncleartomark discard elements down through mark
obj1... objncounttomark mark obj1... objnn
count elements down to mark

intgenerate pseudo-random integer

id set random number seed

intreturn random number seed

arraystart array construction

arrayobj0... objn-1] arrayend array construction

arraylength intnumber of elements in array

arrayindexget anyget array element indexed by index

arrayindex anyput put any into array at index

arrayindex countgetinterval subarraysubarray of array starting at index for count elements

arrayindex array2putinterval replace subarray of array1starting at index by array2

arrayload a0... an-1arraypush all elements of array on stack

arrayanyn-1arrayastore array pop elements from stack into array

arrayarray2copy subarray2copy elements of array1to initial subarray of array2

arrayprocforall execute proc for each element of array

arrayanyn-1npackedarray packedarraycreate packed array consisting of specified n elements

arraypacking boolreturn array packing mode

arraypacking set current array packing mode for `` syntax (true = packedarray)

arrayarraylength intnumber of elements in packedarray

arrayarrayindexget anyget packedarray element indexed by index

arrayarrayindex countgetinterval subarraysubarray of packedarray starting at index for count elements

arrayarrayload a0... an-1packedarraypush all elements of packedarray on stack

arrayarray1array2copy subarray2copy elements of packedarray1to initial subarray of array2

arrayarrayprocforall execute proc for each element of packedarray

dict value search dict stack for key and return associated value

dict uestore replace topmost definition of key

dict yget anyget value associated with key in dict

dict y valueput associate key with value in dict

dict ctstack return dictionary stack to initial state

dict yknown booltest whether key is in dict

dict ere dict true

dict find dict in which key is defined

dict ct2copy dict2copy contents of dict1 to dict2

dict ocforall execute proc for each element of dict

dict ct dictpush errordict on operand stack

dict dict dictpush systemdict on operand stack

dict t dictpush userdict on operand stack

dict dict dictpush current dict on operand stack

dict ctstack intcount elements on dict stack

dict ctstack subarraycopy dict stack into array

string into string at index

string index countgetinterval substringsubstring of string starting at index for count elements

string index string2putinterval replace substring of string1 starting at index by string2

string string2copy substring2copy elements of string1 to initial substring of string2

string procforall execute proc for each element of string

string seekanchorsearch post match true

string ring falsedetermine if seek is initial substring of string

string seeksearch post match pre true

string ng falsesearch for seek in string

string bken post token true

string read token from start of string

lshift int1 bitwise shift of int1 (positive is left)

fill

fill path consisting of one or more rectangles

height stroke

height matrix stroke

stroke

matrix stroke

stroke

stroke path consisting of one or more rectangles

height clip

clip | num string clip intersect inside of current clipping path with supplied path

arbitrary object

if execute proc if bool is true

proc1 proc2 if else execute proc1 if bool is true, proc2 if bool is false

for limit proc for execute proc with values from init by steps of incr to limit

repeat execute proc int times

loop execute proc an indefinite number of times

exit innermost active loop

terminate stopped context

stopped bool establish context for catching stop

exec stack int count elements on exec stack

exec stack subarray copy exec stack into array

terminate interpreter

executed at interpreter startup

e specified file from device
 string2renamefile change file name from string1 to string2
 proc scratchfilenameforall process each file whose name matches pattern with proc
 efile close file
 l int true
 eread one character from file
 write write one character to file
 ngreadhexstring substring boolread hex from file into string
 ngwritehexstring write string to file as hex
 ngreadstring substring boolread string from file
 ngwritestring write characters of string to file
 ngreadline substring boolread line from file into string
 en token true
 read token from file
 setfileposition position next read or write in file to int
 position intreturn current position in already open file
 esavailable intnumber of bytes available to read
 send buffered data to standard output file
 hfile send buffered data or read to EOF
 tfile discard buffered characters
 us boolreturn status of file
 atus pages bytes referenced created true
 e (Display) return status of file
 n execute contents of named file
 file filereturn file currently being executed
 rint write characters of string to standard output file
 write text representation of any to standard output file
 . anynstack | any1... anynprint stack nondestructively using =
 write syntactic representation of any to standard output file
 . anynpstack | any1... anynprint stack nondestructively using ==
 executed when ready for interactive input
 no turn on/off echoing
 nat for object sequences written by printobject and writeobject
 objectformat intreturn current object format used by printobject and writeobject

shared remove key and associated value from dict
shared set private or shared VM allocation mode
shared boolreturn current value of VM allocation mode
check boolreturn whether any is sharable
reclaim control garbage collection mode
us level used maximumreport VM status

context to terminate when it's done executing
context contextreturn integer identifying current context
lockcreate lock
on conditioncreate condition object
procmonitor acquire lock, execute proc, and then release lock
conditionwait release lock, wait for condition, and reacquire lock
onnotify resume execution of contexts waiting for condition
suspend current context until other contexts sharing same VM have executed

y) associate index with name in user name table

nullpush null on operand stack

time int(Display) return PostScript interpreter execution time

time int(Display) return value of clock that counts in real time

version stringinterpreter version

version string (NeXTSTEP) NeXTSTEP version information

writeblock(NeXTSTEP) set whether Window Server blocks

writeblock bool (NeXTSTEP) return whether Server blocks

user uid gid(NeXTSTEP) return user id and group id of currently logged-in user

usage ctime utime stime msgsend msgrcv nsignals nvcsw nivcsw

(NeXTSTEP) report Window Server's resource usage

name priorityplaysound (NeXTSTEP) play soundname at given priority level

save graphics state

restore graphics state

restoreall restore to bottommost graphics state

resetgraphics (standard) reset graphics state parameters


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miterlimit    set miter length limit
miterlimit    numreturn current miter limit
offsetsetdash  set dash pattern for stroking
dash         array offsetreturn current dash pattern
flat         set flatness tolerance
flat         numreturn current flatness
namesetpattern (NeXTSTEP) set pattern for drawing
gray         set color to gray value from 0 (black) to 1 (white)
gray         numreturn current gray
brtsethsbcolor set color given hue, saturation, brightness
hsbcolor     hue sat brtreturn current color hue, saturation, brightness
en bluesetrgbcolor set color given red, green, blue
rgbcolor     red green blue
                                return current color red, green, blue
gesetalpha    (NeXTSTEP) set current coverage
alpha        coverage(NeXTSTEP) return current coverage setting
magenta yellow blacksetcmykcolor set current color parameter in graphics state
cmykcolor    cyan magenta yellow black
                                return current color parameter in graphics state
c greenproc
proc grayprocsetcolortransfer set current transfer function parameters for specified colors
colortransfer redproc greenproc blueproc grayproc
                                return current transfer function parameters for
blackgeneration set current black generation function parameter in graphics state
blackgeneration proc
                                return current black generation function parameter
undercolorremoval set current undercolor removal function parameter in graphics state
undercolorremoval proc
                                return current undercolor removal function parameter
                                state
frequency redangle redproc
frequency greenangle
proc bluefrequency
angle blueproc grayfrequency
angle grayprocsetcolorscreen set all twelve current halftone screen parameters in graphics state
colorscreen  redfrequency redangle redproc greenfrequency
angle greenproc bluefrequency blueangle
proc grayfrequency grayangle grayproc
                                return all twelve current halftone screen parameters
height bits/sample matrix
... procn] multiproc ncolorscolorimage render sampled image with 1, 3, or 4 color values
angle procsetscreen
angle halftonesetscreen set halftone screen
screen      freq angle proc

```

currentgstate gstatefill gstate with copy of current graphics state

sh dict as current halftone dictionary

halftone dictreturn current halftone dictionary

halftonephase (Display) set current halftone phase parameters

halftonephase x y(Display) return current halftone phase parameters

matrixcreate identity matrix

matrix set CTM to device default

identitymatrix matrixfill matrix with identity transform

defaultmatrix matrixfill matrix with device default matrix

currentmatrix matrixfill matrix with CTM

setmatrix replace CTM by matrix

translate translate user space by (tx, ty)

matrixtranslate matrixdefine translation by (tx, ty)

scale scale user space by sxand sy

matrixscale matrixdefine scaling by sxand sy

rotate rotate user space by angle degrees

matrixrotate matrixdefine rotation by angle degrees

concat replace CTM by matrix

glang2arc append counterclockwise arc
glang2arcn append clockwise arc
y2rcto xt1yt1xt2yt2append tangent arc
y2x3y3curveto append Bezier cubic section
dx2dy2dx3dy3rcurveto relative curveto
th connect subpath back to its starting point
path convert curves to sequences of straight lines
path reverse direction of current path
path compute outline of stroked path
oolcharpath append character outline to current path
h set current path to clipping path
ox llxllxyurxuryreturn bounding box of current path
ine curve closepathforall enumerate current path
set clipping path to device default
establish new clipping path
clip using even-odd inside rule

h bounding box for current path
y2rart append arc of circle to current path
huappend append userpath to current path
ath userpathcreate userpath as copy of current path
hufill fill userpath as if by using fill operator
hueofill fill userpath as if by using eofill operator
hustroke
h matrixustroke stroke userpath as if by using stroke operator
hustrokepath
h matrixustrokepath replace current path with userpath and stroke result
store enclosing user path if not already stored
status mark bsize bmax rsize rmax blimit
report status of user path cache
limitsetucacheparams set user path cache parameters

p replace view clipping path with copy of current path
clip replace view clipping path with current path using even-odd inside rule
th heightrectviewclip
ay numstringrectviewclip replace view clipping path with specified path
ppath replace path with copy of current view clipping path

```

draw line along current path
height bits/sample matrix procimage    render sampled image onto current page
height invert matrix procimagemask    render mask onto current page

ation  x yreturn translation from window origin to device space origin
1  bool
thinfill  boolreturn true if pixel at (x, y) (or any pixels in userpath) would be painted by fill of current path
fill  bool
thineofill  boolreturn true if pixel at (x, y) (or any pixels in userpath) would be painted by eofill of current path
rpathinufill  bool
h1userpath2inufill  boolreturn true if pixel at (x, y) (or any pixels in userpath1) would be painted by ufill of
rpathinueofill  bool
h1userpath2inueofill  boolreturn true if pixel at (x, y) (or any pixels in userpath1) would be painted by ueofill of
roke  bool
thinstroke  boolreturn true if pixel at (x, y) (or any pixels in userpath) would be painted by stroke of current path
rpathinustroke  bool
rpath matrixinustroke  bool
h1userpath2inustroke  bool
h1userpath2matrixinustroke  boolreturn true if pixel at (x, y) (or any pixels in userpath1) would be painted by stroke of current path
info  dictreturn dict containing static information about current device

procedure that's executed during showpage
v currentshowpageprocedure  proc
return the procedure that's executed during showpage

age  output and reset current page
age  output current page
ice  install no-output device
height bbox matrix
me portname pixelencoding machportdevice  (NeXTSTEP) set up PostScript device for generic rendering server

automatic stroke adjustment on or off
strokeadjust  boolreturn current state of automatic stroke adjustment

y) remove key from FontDirectory dictionary
lfont  fontreturn font dict identified by key

```

`numarray | numstringxshow` (Display) print characters according to x displacements in numarray or numstring
`numarray | numstringyshow` (Display) print characters according to y displacements in numarray or numstring
`char stringwidthshow` add (cx, cy) to width of char while showing string
`char axaystringawidthshow` combine effects of ashow and widthshow
`stringkshow` execute proc between characters shown from string
`stringwidth` wxwywidth of string in current font
`fontdirectory` dictdictionary of font dictionaries
`FontDirectory` dict(Display) dictionary of font dictionaries
`fontEncoding` arrayNeXTSTEP font encoding vector
`fontOrdEncoding` arraystandard font encoding vector
`fontStyle | matrixselectfont` (Display) establish font specified by key as current font

`fontStatus` bsize bmax msize mmax csize cmax blimit
return cache status and parameters
`fontxlllyurxurysetcachedevice` declare cached character metrics
`fontsetcharwidth` declare uncached character metrics
`fontcachelimit` set max bytes in cached character
`fontsize lower upper` setcacheparams set character cache parameters
`fontcacheparams` mark lower upper
return current font cache parameters

`fontte index` with an object in the user object array
`fontundefineuserobject` remove associate between index and the object it referred to
`fontexecuteuserobject` execute object referred to by index

