Subject: Altered device coordinates after first call
Posted by Juan Arrieta on Mon, 16 Oct 2006 15:59:59 GMT
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Dear IDL experts,

After some data processing, I need to display my results in a "nicely formatted" page. Specifically, my page is landscape letter paper, with a header and a footer, both 5% off the corresponding margins. I know how to create this "margins" and this "header and footer zones".
Now, I can add the plots of my data by using the position keyword. Everything is nice and easy, but the problem is the following:
I run the script ONCE and everything behaves as expected. The SECOND and subsequent calls render the PLOTS correctly, but completely ruin the "margings, header, and footer". It appears like if the device coordinates used to create the plots were overriding the "hard-coded" geometry I provided. Also, I notice that after I call one time the script, all the direct graphics plot appear in yellow, though I have not even used color here. It seems that some environment variables (or global variables, you know, the ones that begin with exclamation mark) are being set after I call the subroutine.

Please have a look at my code, the data is of course fictitious, but the general idea is to produce a nice looking letter-size output. If you want to see the PS, uncomment the corresponding lines. The code as it is will produce a direct graphics plot.

I am using IDL 6.2 (Linux x86_64 m64) in a linux workstation (red hat enterprise 4.0) (opteron processors)

Thanks a lot. I appreciate any help.

/ Juan Arrieta

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PRO TSTDIAGRAM
; EXAMPLE FOR TESTING THE OUTPUT IN A LETTER-SIZE DEVICE (8.5X11)

; SET THE DEVICE (8.5X11IN PAPER (LANDSCAPE), WITH ONE INCH MARGINS)
;SET_PLOT,'PS'
 ;DEVICE,/INCHES,FILENAME='TST.ps',XSIZE=9.0,YSIZE=6.5,/LANDS
CAPE,XOFFSET=1.0,YOFFSET=10.0

; EDGE COORDINATES
X0 = 0.0
X1 = 1.0
Y0 = 0.0
Y1 = 1.0
```

```
; BOX
PLOTS,[0,0],[0,1]
PLOTS,[0,1],[1,1]
PLOTS,[1,1],[1,0]
PLOTS,[1,0],[0,0]
; HEADER AND FOOTER
PLOTS,[0,1],[0.95,0.95]
PLOTS,[0,1],[0.05,0.05]
; HEADER AND FOOTER BINS
PLOTS,[0.25,0.25],[1.0,0.95] ; SECOND HEADER BIN
PLOTS,[0.50,0.50],[1.0,0.95] ; THIRD HEADER BIN
PLOTS,[0.75,0.75],[1.0,0.95] ; FOURTH HEADER BIN
PLOTS,[0.25,0.25],[0.0,0.05] ; SECOND FOOTER BIN
PLOTS,[0.50,0.50],[0.0,0.05] ; THIRD FOOTER BIN
PLOTS,[0.75,0.75],[0.0,0.05] ; FOURTH FOOTER BIN


; NASA LOGO AND "PREPARED BY" STRING
NASA = '!10nasa!N!X'
XYOUTS,0,-0.05,NASA,SIZE=2
XYOUTS,1,-0.05,'Prepared by J. J. Arrieta-Camacho',ALIGN=1.0

; TITLE
XYOUTS,0.5,1.025,'December 18, 2018',ALIGN=0.5,SIZE=2.5

; EARTH, MOON, AND OTHER SYMBOLS
EARTH = '!20S!N!X'
MOON = '!20V!N!X'
EQUINOX = '!20x!N!X'
DELTA = '!4D!N!X'
RAAN = '!4X!N!X'
TRAN = '!4x!N!X'

; DIRECTION OF MANEUVER (EARTH-MOON OR MOON-EARTH) PLACED IN THE FIRST
; HEADER BIN
STR = 'Maneuver: '+EARTH+' - '+MOON
XYOUTS,(0.25-0.0)/2.0,0.965,STR,ALIGN=0.5,CHARSIZE=1.5

; TYPE OF MANEUVER
STR = 'Ballistic (TLI)'
XYOUTS,0.25+(0.5-0.25)/2.0,0.965,STR,ALIGN=0.5,CHARSIZE=1.5

; RADIUS OF EARTH  PARKING ORBIT
STR = '!SH!D'+EARTH+'!N'+'='+'200 km'
 XYOUTS,0.50+(0.75-0.50)/2.0,0.965,STR,ALIGN=0.5,CHARSIZE=1.5

; RADIUS OF MOON TARGET ORBIT (PERIAPSIS)
STR = '!SH!D'+MOON+'!N'+'='+'200 km'
```

```
 XYOUTS,0.75+(1.05-0.75)/2.0,0.965,STR,ALIGN=0.5,CHARSIZE=1.5



; COORDINATE SYSTEM
STR = 'TEME J2000'
XYOUTS,0.0+(0.25-0.00)/2.0,0.015,STR,ALIGN=0.5,CHARSIZE=1.5

; RIGHT ASCENSION OF THE ASCENDING NODE (TRANSFER ORBIT)
STR = RAAN + '=' + '237.45 deg'
 XYOUTS,0.25+(0.50-0.25)/2.0,0.015,STR,ALIGN=0.5,CHARSIZE=1.5

; TRANSFER TIME
STR = 'TLC '+'='+'72.012 h'
 XYOUTS,0.50+(0.75-0.50)/2.0,0.015,STR,ALIGN=0.5,CHARSIZE=1.5

; DELTA-V
STR = DELTA+'V'+'='+'3.4526 km/s'
 XYOUTS,0.75+(1.00-0.75)/2.0,0.015,STR,ALIGN=0.5,CHARSIZE=1.5

;;; THE REST OF THE CODE IS WHERE I WOULD BE ADDING MY PLOTS

!Y.OMARGIN = [3.5,3.5]
!P.MULTI=[0,3,2]
FOR J = 0,5 DO PLOT, FINDGEN(10),/noerase

;DEVICE,/CLOSE
;SET_PLOT,'X'
END
```