Subject: problem with output on PS device / TVREAD
Posted by on Thu, 25 Mar 2010 14:57:22 GMT
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Hi all,

I want to do something quite simple, but i'm on it since three days...need help !

I have a structure like this : geo={lon:FLTARR(Nlon), lat:FLTARR(Nlat) , amp:FLTARR(Nlon,Nlat), pha:FLTARR(Nlon,Nlat)}

Where "amp" and "pha" are tidal wave amplitude and phase.

I would like to plot these data on a geographical map and display the output in my X window for a preview, and save this image as a PS (or PNG).

FIRST PROBLEM :
The display in the X window finally works, not so bad, but things get worse with the postscript....
It's not a problem with COLORS, neither POSITION, but my RESOLUTION is crude in the Postscript, whereas the image is quite good quality on the display window.

SECOND PROBLEM :
PS doesn't works ? Ok i'm gonna save it as a PNG, using TVREAD.
And .... my PNG only contains the map grid, titles, etc... but no image. Worse, the titles, axes, etc. are in purple (the first color of my color table).

If it can help, my display is 16bits.

Any (good) idea ?
Thanks a lot !

HERE IS MY CODE :

```
PRO test_map_geomat, ps=ps, png=png

  DEVICE, decomposed=0                    ;(this is actually in
my startup file)
  file=!model_path+'mertz/K1.nc'           ; define the
file_path

;load the file and put the data in a structure :
```

```
GEO.amp(fltarr(lon,lat), GEO.pha(fltarr(lon,lat), GEO.LON, GEO.LAT
  geo=tugo2geomat_cl(file,/TIDE)

; get geographical limits
  minlon=MIN(geo.lon, /NAN, MAX=maxlon)
  minlat=MIN(geo.lat, /NAN, MAX=maxlat)
  limit=[minlat,minlon,maxlat,maxlon]

; Define colors
  ncolors=50
  pal_num=25

  white = GetColor('white', ncolors)
  black = GetColor('black', ncolors+2)

  missing=white

; Load colors for display.
  !P.Background = white
  !P.Color      = black
  erase

; Load Color table
  loadct,pal_num, NCOLORS=ncolors


; For PS output Only
  IF KEYWORD_SET(ps) THEN BEGIN
    rightsize = PSWINDOW(/CM)
    this_device = !D.name
    SET_PLOT,
'PS'
    device, color=1, bits_per_pixel=8 ,  _EXTRA=rightsize
    device, filename=!idl_output+'toto.ps'
  ENDIF


; FIRST PLOT : tide PHASE
  ; SET the plot position
    pos=[0.1,0.2,0.45,0.8]

  ; Set the MAP
    MAP_SET,/NOERASE, /MERCATOR, /ISOTROPIC, /NOBORDER, XMARGIN=[3,3],
YMARGIN=[3,3], LIMIT=limit, TITLE='Phase (deg) !C', POSITION=pos,
color=black

  ; compute min and max for appropriate scaling
    minpha=MIN(geo.pha, /NAN, max=maxpha)
```

```
  ; Scaling (scale all the values between MIN and MAX from 0 to TOP,
Nan are set to 'missing')
    pha_scaled  = arrscl(geo.pha, min_value=minpha, max_value=maxpha,
top=(ncolors-1), missing=missing)
  ; wrap image to the map, returns positions and sizes
    pha_img     = MAP_IMAGE(pha_scaled,x_offet, y_offset,xsize,ysize, /
BILINEAR, COMPRESS=1, LONMIN=limit[1], LONMAX=limit[3],
LATMIN=limit[0], LATMAX=limit[2])
  ;DISPLAY on TV
    tv,pha_img, x_offet, y_offset, XSIZE=xsize,YSIZE=ysize
  ; display the geographical grid
    MAP_GRID,/BOX_AXES,  _EXTRA=_EXTRA, COLOR=black

    pos=[0.1,0.05,0.45,0.08]
    COLORBAR, ncolors=ncolors, range=[minpha, maxpha], POSITION=pos

; SECOND PLOT : tide amplitude

    pos=[0.55,0.2,0.9,0.8]
    MAP_SET,  /NOERASE, /MERCATOR, /ISOTROPIC, /NOBORDER, /GRID,
E_GRID={BOX_AXES:1},  XMARGIN=[3,3], YMARGIN=[3,3], LIMIT=limit,
TITLE='Amplitude (cm) !C', POSITION=pos, color=black
    minamp=MIN(geo.amp, /NAN, max=maxamp)
    amp_scaled  = arrscl(geo.amp, min_value=minamp, max_value=maxamp,
top=(ncolors-1), missing=missing)
    amp_img     = MAP_IMAGE(amp_scaled,x_offet, y_offset,xsize,ysize, /
BILINEAR, COMPRESS=1, LONMIN=limit[1], LONMAX=limit[3],
LATMIN=limit[0], LATMAX=limit[2])
    tv,amp_img, x_offet, y_offset, XSIZE=xsize,YSIZE=ysize
    MAP_GRID,/BOX_AXES,  _EXTRA=_EXTRA, color=black

    pos=[0.55,0.05,0.9,0.08]
    COLORBAR, ncolors=ncolors, range=[minamp*100, maxamp*100],
POSITION=pos


 ; CLOSE THE PS file and Display with GV
  IF KEYWORD_SET(ps) THEN BEGIN
    device, /close_file
    set_plot, this_device
    spawn, 'gv '+!idl_output+'toto.ps'
  ENDIF



  IF KEYWORD_SET(png) THEN BEGIN

    toto=TVREAD()
```

```
    erase
    TVIMAGE, TOTO

    ;spawn, 'display '+!idl_output+'toto'
  ENDIF


END
```