Subject: IDL plotting query - how can I get rid of unwanted colour for a particular data value???
Posted by edhanna2008 on Thu, 01 May 2008 16:51:44 GMT
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Hi,

When using the IDL code below or similar (which uses one of the built-in colour tables to display a range of data), does anyone have any idea how I can force a particular value (e.g. -999 = nodata) to be NOT plotted in the image, e.g. ocean/land area surrounding Greenland Ice Sheet in this instance? At the moment it's plotting the image fine except that it's colouring parts of the grid (nodata) that I don't want it to, which makes my results less clear than they should be.

Many thanks,

Edward

```
pro icedh2

;common colors, r_orig, g_orig, b_orig, r_curr, g_curr, b_curr
loadct,33,bottom=0
;tvlct, r_orig, g_orig, b_orig
set_plot,'ps', /int

device, /portrait, bits=8, xoffset=1, yoffset=1.75, xsize=6, ysize=7,$
/inches, /color,$

filename='/home/gg1eh/era40/runoff/
runoffmon_dh1995to2005_base19772006.ps'

 openu,1,'/home/gg1eh/era40/runoff/runoffmon_dh1995to2005_bas e19772006'

;device,/close

nx=329L
ny=561L
h1=fltarr(nx,ny)
readu,1,h1
;print,h1
;byteorder,h1, /FTOXDR
close,1

map_set,71,-44,/stereographic,limit=[58,-60,82,-20],$
title= 'GrIS annual dH/dt: 1995-2005 (base 1977-2006)',$
```

```
  position=[0,0,1,1],/grid,/noerase

data = bytscl(h1,min=-1.0,max=0.5,top=255)

lats=fltarr(nx,ny)
lons=fltarr(nx,ny)
pi=3.141592654
for iy = 0 , ny-1 do begin
  for ix = 0 , nx-1 do begin
    ;print,ix,iy,data
    i=((ix+1)-149.0)*5000.0;
    j=((iy+1)-681.0)*5000.0;
    a=2*atan(sqrt((i*i)+(j*j))/(2*6371221*0.9728));
    ;print,i,j,a
    lats[ix,iy]=asin(cos(a))*(180.0/pi);
    lons[ix,iy]=atan(i/(-j))*(180.0/pi)-44.0;
     ;print,lons[ix,iy],lats[ix,iy]
     ;stop
  endfor
endfor
print,'gothere22'

data=reform(data,nx*ny)
lats=reform(lats,nx*ny)
lons=reform(lons,nx*ny)
print,'gothere23'

data =
 map_patch(data,lons,lats,xstart=xs,ystart=ys,xsize=xsize,ysi ze=ysize,$
  triangulate=1,missing=0)

tv, data, xs, ys, xsize=xsize, ysize=ysize
map_grid,latdel=5,londel=10,/label
map_continents
border = intarr(2,2)
contour, border,
position=[0,0,1,1],xticks=1,yticks=1,xstyle=1,ystyle=1, $
XCharsize=0.001,YCharsize=0.001, /nodata, /noerase
print,'gothere24'

levs=(findgen(11)*0.15-1.0)
levs2=fltarr(11,2)
levs2(*,0)=levs(*)
levs2(*,1)=levs(*)
cl=findgen(11)*25.599
contour,levs2,levs,[0,1],/
cell_fill,levels=levs,position=[0.2,0.0,0.7,0.05],$
/noerase,xticks=1,yticks=1,xstyle=1,ystyle=1, XCharsize=1.25,
```

```
YCharsize=0.001,$
c_colors=cl, xtitle = 'dH/dt (m/yr)'

print,'gothere25'
device,/close
set_plot,'X'

print,'gothere26'
end
```