Subject: Re: Issue using map_set and !p.multi in combination with polyfill to colour window backgrounds
Posted by Andy Sayer on Fri, 23 Aug 2013 14:12:56 GMT
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Sorry, it should read 7*5=35 in the text above, not 25, obviously. :)

On Friday, August 23, 2013 10:00:03 AM UTC-4, AMS wrote:
> Hi all,
>
>
>
> I’m having a slight issue with a combination of polyfill, map_set, and !P.multi...
>
>
>
> Basically, I would like to set up multiple maps per page with the option of having a different colour background for each individual map (which will normally be black or white). I know I can change background colours with Coyote Graphics, but I only want to colour a portion of the window, not the whole thing, if I am drawing multiple plots to the window. So I have been writing some test code to check this out. This is what I have so far:
>
>
>
>
>
> !P.multi=[0,7,5]
>
> loadct,2
>
>
>
> window,0,xsize=1500,ysize=800
>
> for i=0,!p.multi[1]*!p.multi[2]-1 do begin
>
>
>
> ; Get coordinates of this plot subregion for polyfill.
>
> ; Can't colour the whole window as it won't work with !p.multi.
>
> p_nx=!p.multi[1]
>
> if p_nx eq 0 then p_nx=1
>
> p_ny=!p.multi[2]
>

```
>          if p_ny eq 0 then p_ny=1
>
>          ; Get the x/y position of the current window
>
>          p_fx=!p.multi[0] mod p_nx
>
>          if p_fx eq 0 then p_fx = !p.multi[1]
>
>
>
>          p_fy=fix((!p.multi[0]-1) / (1.*p_nx))
>
>          if !p.multi[0] eq 0 then p_fy= p_ny-1; !p.multi[0]=0 means this is the first plot on a new
page
>
>
>
>          print,!p.multi[0],p_fx,p_fy
>
>
>
>          start_x=1.-(1.*p_fx)/!p.multi[1]
>
>          end_x=start_x+1./!p.multi[1]
>
>
>
>          start_y=(1.*p_fy)/!p.multi[2]
>
>          end_y=start_y+1./!p.multi[2]
>
>
>
>          print,start_x,end_x,start_y,end_y
>
>
>
>          polyfill, [start_x,end_x,end_x,start_x,start_x],
[start_y,start_y,end_y,end_y,start_y],/normal,color=i+1
>
>
>
>          nplots = !P.multi(1) * !P.multi(2)
>
>          advance  = nplots gt 1
>
>          map_set,advance=advance
>
```

>
>
> endfor
>
>
>
> end
>
>
>
> The first section of the loop basically sets up the normalised x/y coordinates for this plot among the set of (here 7*5=25) plots. These coordinates are then printed to the screen using the print command, and all look correct. So, if I run this I'd expect to get 35 differently-coloured plots (well, map_set borders), in different shades of 'greenness' according to colour table 2, going across the window in rows from top to bottom.
>
>
>
> However, what actually happens is that the first plot has a black background, rather than the initial dark green. The other 34 look as expected. If I insert a stop before the map_set command, I see that the dark green polygon is drawn but then erased by the first map_set call. No problem, I thought, I'll check if this is the first plot on the page and if so use the noerase keyword:
>
>
>
> noerase=0
>
> if !p.multi[0] eq 0 then noerase=1
>
> nplots = !P.multi(1) * !P.multi(2)
>
> advance = nplots gt 1
>
> map_set,advance=advance,noerase=noerase
>
>
>
> However, this gives the same behaviour. If I abandon maps for a moment and replace that section with this, it works fine:
>
>
>
>
> noerase=0
>
> if !p.multi[0] eq 0 then noerase=1
>
> plot,findgen(4),noerase=noerase
>

> if !p.multi[0] eq 0 then !p.multi[0] = !p.multi[1]*!p.multi[2]-1
>
>
>
> ... but I can’t make it work with map_set at all. Can anyone see what I am doing wrong? This is IDL 8.2.2 on CentOS (not sure which version).
>
>
>
> Thanks,
>
>
>
> Andy
