Subject: Re: help with transparent plot in version 8.2.2
Posted by Brian Daniel on Thu, 14 Mar 2013 13:05:43 GMT

On Wednesday, March 13, 2013 11:42:42 PM UTC-4, Teddy Allen wrote:
> In the past I was able to easily save any line plot with a transparent background simply by saving the plot as:
>
>
>
> plot.save,'transparent_plot.png',/TRANSPARENT
>
>
>
> Unfortunately, this does not seem to work anymore if used with the plot function with the POSITION keyword. The following lines of code do not produce an expected transparent .png .
>
>
>
>
>
> ;;;; GPCP2b is a 16,16,12 array
>
> ;;;; Lines below produce a 12 month annual rainfall time series for a 16x16 grid
>
> ;;;; in the Caribbean.
>
>
>
> DIM=16.
>
> SC=1/DIM
>
> p = plot(GPCP2b[0,0,*],position=[0,0,SC,SC],$
>
>   yrange=[0,max(GPCP2b)], XSHOWTEXT=0,$
>
>   YSHOWTEXT=0, color='black',TRANSPARENCY=0)
>
>
>
> for i = 0,15 do begin
>
>   for j =0,15 do begin
>
>   p1=plot(GPCP2b[i,j,*],position=[SC*i,SC*j,SC*(i+1),SC*(j+1)] $,/current,
>
>   yrange=[0,max(GPCP2b)], XSHOWTEXT=0, YSHOWTEXT=0, color='black')

>
>   endfor
>
> endfor
>
> p1.save,'C:\datasets\testTRANS.png',/TRANSPARENT
>
>
>
>
>
>
>
> I have tried various combinations of using BACKGROUND_COLOR and BACKGROUND_TRANSPARENCY in the plot commands, but nothing works.
>
>
>
> This produces a transparent plot:
>
> p = plot(GPCP2b[0,0,*],yrange=[0,max(GPCP2b)], XSHOWTEXT=0, YSHOWTEXT=0, $
color='black')
>
> p.save,'C:\datasets\testTRANS.png',/TRANSPARENT
>
>
>
> However, this DOES NOT:
>
> p = plot(GPCP2b[0,0,*],position=[0,0,SC,SC],yrange=[0,max(GPCP2b)],$
XSHOWTEXT=0,YSHOWTEXT=0,color='black')
>
> p.save,'C:\datasets\testTRANS.png',/TRANSPARENT
>
>
>
>
>
> Any tips would be greatly appreciated. Thank you.
>
> teddy

Have you tried using the Layout keyword instead of Position?

Subject: Re: help with transparent plot in version 8.2.2
Posted by David Fanning on Thu, 14 Mar 2013 13:40:12 GMT

Teddy Allen writes:

> In the past I was able to easily save any line plot with a transparent background simply by saving the plot as:
>
> plot.save,'transparent_plot.png',/TRANSPARENT
>
> Unfortunately, this does not seem to work anymore if used with the plot function with the POSITION keyword. The following lines of code do not produce an expected transparent .png .

I get transparent plots with or without the POSITION keyword on my Windows machine in IDL 8.2.2.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: help with transparent plot in version 8.2.2
Posted by Teddy Allen on Thu, 14 Mar 2013 17:00:46 GMT

On Thursday, March 14, 2013 9:40:12 AM UTC-4, David Fanning wrote:
> Teddy Allen writes:
>
>
>
>> In the past I was able to easily save any line plot with a transparent background simply by saving the plot as:
>
>>
>
>> plot.save,'transparent_plot.png',/TRANSPARENT
>
>>
>
>> Unfortunately, this does not seem to work anymore if used with the plot function with the POSITION keyword. The following lines of code do not produce an expected transparent .png .
>

>

>

> I get transparent plots with or without the POSITION keyword on my

>

> Windows machine in IDL 8.2.2.

>

>

>

> Cheers,

>

>

>

> David

>

>

>

>

>

> --

>

> David Fanning, Ph.D.

>

> Fanning Software Consulting, Inc.

>

> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/

>

> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Very strange, I do NOT get a transparent images when I include the POSITION keyword.

```
p =  plot(GPCP2b[0,0,*],position=[0,0,SC,SC],yrange=[0,max(GPCP2b
)],XSHOWTEXT=0,YSHOWTEXT=0,color='black',TRANSPARENCY=0)
p.save,'C:\datasets\testPOSITION_ONE.png',/TRANSPARENT
```

DO NOT RETURN TRANSPARENT IMAGE, but the following DOES:
```
p =  plot(GPCP2b[0,0,*],yrange=[0,max(GPCP2b)],XSHOWTEXT=0,YSHOWT
EXT=0,color='black',TRANSPARENCY=0)
p.save,'C:\datasets\testPOSITION_ONE.png',/TRANSPARENT
```

Subject: Re: help with transparent plot in version 8.2.2
Posted by David Fanning on Thu, 14 Mar 2013 17:12:36 GMT

Teddy Allen writes:

> Very strange, I do NOT get a transparent images when I include the POSITION keyword.

>

> p = plot(GPCP2b[0,0,*],position=[0,0,SC,SC],yrange=[0,max(GPCP2b
)],XSHOWTEXT=0,YSHOWTEXT=0,color='black',TRANSPARENCY=0)
> p.save,'C:\datasets\testPOSITION_ONE.png',/TRANSPARENT
>
> DO NOT RETURN TRANSPARENT IMAGE, but the following DOES:
> p = plot(GPCP2b[0,0,*],yrange=[0,max(GPCP2b)],XSHOWTEXT=0,YSHOWT
EXT=0,color='black',TRANSPARENCY=0)
> p.save,'C:\datasets\testPOSITION_ONE.png',/TRANSPARENT

Well, I can't plot your data, obviously. Can you give me an example that
fails that I can actually test?

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: help with transparent plot in version 8.2.2
Posted by Teddy Allen on Thu, 14 Mar 2013 18:29:30 GMT
View Forum Message <> Reply to Message

On Thursday, March 14, 2013 9:05:43 AM UTC-4, Brian J. Daniel wrote:
> On Wednesday, March 13, 2013 11:42:42 PM UTC-4, Teddy Allen wrote:
>
>> In the past I was able to easily save any line plot with a transparent background simply by
saving the plot as:
>
>>
>
>>
>
>>
>
>> plot.save,'transparent_plot.png',/TRANSPARENT
>
>>
>
>>
>
>>
>
>>

>
>> Unfortunately, this does not seem to work anymore if used with the plot function with the
POSITION keyword. The following lines of code do not produce an expected transparent .png .
>
>>
>
>>
>
>>
>
>>
>
>>
>
>> ;;;; GPCP2b is a 16,16,12 array
>
>>
>
>> ;;;; Lines below produce a 12 month annual rainfall time series for a 16x16 grid
>
>>
>
>> ;;;; in the Caribbean.
>
>>
>
>>
>
>>
>
>> DIM=16.
>
>>
>
>> SC=1/DIM
>
>>
>
>> p = plot(GPCP2b[0,0,*],position=[0,0,SC,SC],$
>
>>
>
>>   yrange=[0,max(GPCP2b)], XSHOWTEXT=0,$
>
>>
>
>>   YSHOWTEXT=0, color='black',TRANSPARENCY=0)
>

```
>>
>
>>
>
>>
>
>> for i = 0,15 do begin
>
>>
>
>>   for j =0,15 do begin
>
>>
>
>>     p1=plot(GPCP2b[i,j,*],position=[SC*i,SC*j,SC*(i+1),SC*(j+1)] $,/current,
>
>>
>
>>     yrange=[0,max(GPCP2b)], XSHOWTEXT=0, YSHOWTEXT=0, color='black')
>
>>
>
>>   endfor
>
>>
>
>> endfor
>
>>
>
>> p1.save,'C:\datasets\testTRANS.png',/TRANSPARENT
>
>>
>
>>
>
>>
>
>>
>
>>
>
>>
>
>>
>
>> I have tried various combinations of using BACKGROUND_COLOR and
BACKGROUND_TRANSPARENCY in the plot commands, but nothing works.
```

>
>>
>
>>
>
>>
>
>> This produces a transparent plot:
>
>>
>
>> p = plot(GPCP2b[0,0,*],yrange=[0,max(GPCP2b)], XSHOWTEXT=0, YSHOWTEXT=0, $
color='black')
>
>>
>
>> p.save,'C:\datasets\testTRANS.png',/TRANSPARENT
>
>>
>
>>
>
>>
>
>> However, this DOES NOT:
>
>>
>
>> p = plot(GPCP2b[0,0,*],position=[0,0,SC,SC],yrange=[0,max(GPCP2b)],$
XSHOWTEXT=0,YSHOWTEXT=0,color='black')
>
>>
>
>> p.save,'C:\datasets\testTRANS.png',/TRANSPARENT
>
>>
>
>>
>
>>
>
>>
>
>>
>
>> Any tips would be greatly appreciated. Thank you.
>
>>

>
>> teddy
>
>
>
> Have you tried using the Layout keyword instead of Position?

Looks like using LAYOUT instead of POSITION worked! I wish I knew why though...Thank you!

Subject: Re: help with transparent plot in version 8.2.2
Posted by David Fanning on Thu, 14 Mar 2013 18:57:47 GMT
View Forum Message <> Reply to Message

Teddy Allen writes:

> Looks like using LAYOUT instead of POSITION worked! I wish I knew
> why though...

Yes, my general experience with function graphics is that there are always multiple ways to do something with the routines, only one of which actually works. It is left as an an exercise for the user to determine which one that is. The only pattern I've noticed is that the right answer is generally not the one recommended by whatever documentation you have found to read. :-)

In defense of function graphics, however, I will say that the version in IDL 8.2.2 is the best yet, and I have noticed a significant speed-up in performance lately. I still find them a bit confounding and I chafe at these niggling "features" that *almost* allow you to do your work, but not quite. For example, I think I might be quite happy to switch to function graphics map projections if I could just label box axes appropriately and if they didn't insist on warping my image.

Maybe by next year...

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: help with transparent plot in version 8.2.2

Posted by chris_torrence@NOSPAM on Fri, 15 Mar 2013 21:03:27 GMT

Hi Teddy,

I can explain this. In the docs for the TRANSPARENT keyword, there is a little-known sentence: "Set this keyword to an RGB value (a three-element vector of the form [R, G, B]) indicating which pixels in the output image should be made transparent. If this keyword is set to 1, the color of the lower left pixel in the image is used as the transparent color."

So, in your example with POSITION, you are putting the plot into the lower-left corner. So the pixel at [0,0] is actually black, which is unfortunately getting assigned as the transparent color!

The solution is to do p.Save, 'plot.png', TRANSPARENT=[255,255,255], which forces the transparent color to be white.

Hope this helps.

-Chris
ExelisVIS

Subject: Re: help with transparent plot in version 8.2.2
Posted by chris_torrence@NOSPAM on Fri, 15 Mar 2013 21:05:11 GMT

On Thursday, March 14, 2013 12:57:47 PM UTC-6, David Fanning wrote:
> Teddy Allen writes:
>
>
>
>> Looks like using LAYOUT instead of POSITION worked! I wish I knew
>
>> why though...
>
>
>
> Yes, my general experience with function graphics is that there are
>
> always multiple ways to do something with the routines, only one of
>
> which actually works. It is left as an an exercise for the user to
>
> determine which one that is. The only pattern I've noticed is that the
>
> right answer is generally not the one recommended by whatever
>
> documentation you have found to read. :-)

>

>

>

> In defense of function graphics, however, I will say that the version in

>

> IDL 8.2.2 is the best yet, and I have noticed a significant speed-up in

>

> performance lately. I still find them a bit confounding and I chafe at

>

> these niggling "features" that *almost* allow you to do your work, but

>

> not quite. For example, I think I might be quite happy to switch to

>

> function graphics map projections if I could just label box axes

>

> appropriately and if they didn't insist on warping my image.

>

>

>

> Maybe by next year...

>

>

>

> Cheers,

>

>

>

> David

>

> --

>

> David Fanning, Ph.D.

>

> Fanning Software Consulting, Inc.

>

> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/

>

> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Hi David,
As you point out, clear, simple reproduce cases will go a long way towards getting any
shortcomings fixed. :-)
-Chris