Subject: Problem with long integer color when saving a cgwindow to file
Posted by   on Mon, 03 Mar 2014 16:28:27 GMT

Hi,

I'm using cgplot in a cgwindow, specifying the color with a long integer. This works fine. But when I try to save it as a graphics file, I get an error of this type:

Traceback Report from CGPLOT:

    % CGDEFAULTCOLOR: Improper input color. It is possible 24-bit colors (LONGs)
             are being used in indexed color mode to specify colors.

Here is a minimal example:

```
cgwindow
cgplot, /add, [1, 2, 3], color = 9243623L
; Fine so far
cgcontrol, output = 'test.jpg'
```

Subject: Re: Problem with long integer color when saving a cgwindow to file
Posted by David Fanning on Mon, 03 Mar 2014 17:05:32 GMT

Mats Löfdahl writes:

> I'm using cgplot in a cgwindow, specifying the color with a long
integer. This works fine. But when I try to save it as a graphics file,
I get an error of this type:
>
> Traceback Report from CGPLOT:
>
>   % CGDEFAULTCOLOR: Improper input color. It is possible 24-bit colors (LONGs)
>   are being used in indexed color mode to specify colors.
>
>
> Here is a minimal example:
>
> cgwindow
> cgplot, /add, [1, 2, 3], color = 9243623L
> ; Fine so far
> cgcontrol, output = 'test.jpg'

Congratulations, Mats, you are one in 10,000 IDL programmers using long
integers the way they are suppose to be used!

I spent years tying to get people to do this. Eventually, I just gave it up as a lost cause. As a result, PostScript output is done (by default) in indexed color mode rather than decomposed color mode. Coyote routines mostly don't care. But, here is a case where you want to set your PostScript device up in decomposed color like everything else these days.

The way this is done is with cgWindow_SetDefs:

    cgWindow_SetDefs, PS_Decomposed=1

I have this command in my IDL startup file, so it is done every time I start an IDL session. This way there is never any difference between what I see on my display and what I see in my PostScript file. In my opinion, anyone using IDL 7.1 or later should do this. (24-bit PostScript was introduced in IDL 7.1).

cgWindow gets its defaults from the keywords you set with cgWindow_SetDefs.

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: Problem with long integer color when saving a cgwindow to file
Posted by David Fanning on Mon, 03 Mar 2014 17:21:10 GMT
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David Fanning writes:

> The way this is done is with cgWindow_SetDefs:
>
>   cgWindow_SetDefs, PS_Decomposed=1

By the way, if you don't want to permanently set your PostScript device up in 24 bit color, you can also set the PS_Decomposed keyword on the cgControl command to do it for just that one instance.

    cgcontrol, output = 'test.jpg', ps_decomposed=1

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: Problem with long integer color when saving a cgwindow to file
Posted by   on Mon, 03 Mar 2014 18:02:33 GMT

Den måndagen den 3:e mars 2014 kl. 18:21:10 UTC+1 skrev David Fanning:
> David Fanning writes:
>
>> The way this is done is with cgWindow_SetDefs:
>
>>   cgWindow_SetDefs, PS_Decomposed=1
>
> By the way, if you don't want to permanently set your PostScript device
> up in 24 bit color, you can also set the PS_Decomposed keyword on the
> cgControl command to do it for just that one instance.
>
>   cgcontrol, output = 'test.jpg', ps_decomposed=1

Thank you David!

I don't know if I want to change this permanently or not. What are the drawbacks? That is, why isn't it the default? Is it so people will be able to use non-cg commands in a cgwindow with longs used the wrong way?

(I just happened to see the long integer thing today when I was looking for something else. I even hacked up a version of cgcolor over the weekend, that accepted RGB colors given as hexadecimal strings. Worked fine, but felt a bit stupid when I found out about the longs... :o)

Subject: Re: Problem with long integer color when saving a cgwindow to file
Posted by David Fanning on Mon, 03 Mar 2014 18:18:06 GMT

Mats Löfdahl writes:

> I don't know if I want to change this permanently or not. What are the drawbacks? That is, why isn't it the default?

I would say the drawback is that most people don't even realize the PostScript device can be configured, let alone configured as a 24-bit device. And, worst of all, the PostScript device is a "sticky" configuration. Once you set it, it stays set until you change it. If you use indexed color routines at all, then you are likely to be confused when all your graphics are showing up in shades of red in your PostScript device. :-)

Cheers,

David
--
David Fanning, Ph.D.
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