
Subject: Re: fsc_color problem on IDL7.1

Posted by [David Fanning](#) on Sun, 24 May 2009 17:23:48 GMT

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Dick French writes:

```
> Welcome rfrench@titan.home to IDL Version: 7.1 !
> Current time: Sun May 24 11:11:32 2009
> IDL>
> ps_start,file='hohoho.ps'
> PostScript output will be created here: /Users/rfrench/hohoho.ps
> IDL> Plot, Findgen(11), COLOR=FSC_Color('navy'), /NODATA,
> XTITLE='Time', YTITLE='Signal'
> %FSC_COLOR: Keyword TRUE_COLOR not allowed in call to: DEVICE
>
> Traceback Report from FSC_COLOR:
>
>   % Keyword TRUE_COLOR not allowed in call to: DEVICE
>
>
> I assume that fsc_color needs to know about the PS TRUECOLOR
> capabilities of IDL7.1.
```

I had this program open for another reason the other day, and I was playing around with the IDL 7.1 beta, so I thought I would just set it up to work properly with 24-bit color in PostScript. But in the final IDL 7.1, they abandoned the TRUE_COLOR keyword for something else (DECOMPOSED=1, I think, which would make a LOT more sense to me).

Unfortunately, I don't have the official 7.1 version, so I don't know how to fix this. If someone figures it out, please let me know.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

Subject: Re: fsc_color problem on IDL7.1

Posted by [David Fanning](#) on Sun, 24 May 2009 22:05:19 GMT

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Dick French writes:

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> Welcome rfrench@titan.home to IDL Version: 7.1 !
> Current time: Sun May 24 11:11:32 2009
> IDL>
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>
> I assume that fsc_color needs to know about the PS TRUECOLOR
> capabilities of IDL7.1.
```

OK, the 24-bit PostScript driver is going to be a *tremendous* help to us...someday. Probably in some far off version of IDL, unfortunately. For the moment, and in IDL 7.1 surely, we are going to have to deal with chaos and confusion for a while. This is because it is now possible to set the PostScript device to work in 24-bit color, but it is NOT possible to tell if the PostScript device is set to work in 24-bit color, at least not programmatically. (I do wish someone would read the comments of beta testers. It might really help with these kinds of issues.)

Specifically, you can use the DECOMPOSED keyword to select indexed color (DECOMPOSED=0) or true-color (DECOMPOSED=1), but you can't use the GET_DECOMPOSED keyword to tell what the PostScript device is currently set to. GET_DECOMPOSED is not a valid keyword for the PostScript device. Sigh...

"Smart" programs like FSC_COLOR, TVIMAGE, and the like handle colors correctly in a device-independent way because they can figure out what you want from the state the graphics device is in. If need be, they can change the state, do their thing, and switch the state back to what it was when they started, leaving you unbothered by the details.

So, to get FSC_COLOR to work correctly with the PostScript device set in 24-bit color mode I had to create a device-independent program that could tell me if color deposition is turned ON or OFF for any IDL graphics device. I named the program DecomposedColor. It can also tell you the

depth of the graphics device by using a DEPTH output keyword. For PostScript, I process the results of the HELP, /DEVICE command and look for the line that starts "Input Color Model". You can find the program here:

<http://www.dfanning.com/programs/decomposedcolor.pro>

This program works identically for the WIN, X, MAC, Z, and PS devices, and probably all the others that I haven't really bothered to check.

It is a function that returns a 1 if the device is currently set to use decomposed color and a 0 if the device is currently set to use indexed color.

Once I know what I am dealing with, FSC_COLOR will work correctly. You can find a new IDL 7.1 version here:

http://www.dfanning.com/programs/fsc_color.pro

It requires DECOMPOSEDCOLOR to work correctly.

Cheers,

David

P.S. Who wants to prepare the article for my web page that answers the question: "How come all my PostScript output comes out colored in shades of red?" I figure we should be proactive. We are going to be answering this question a LOT!

Or, the alternative question: "How come every time I make a PostScript file all I see is a blank sheet of paper?" (Hint, think "white on white".)

--

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

Subject: Re: fsc_color problem on IDL7.1
Posted by [Richard French](#) on Mon, 25 May 2009 03:25:52 GMT
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David - thanks for the quick work! I noticed that decomposedcolor.pro was written next November - we must have gotten a special prerelease

version!
Dick

; MODIFICATION HISTORY:
;
; Written by: David W. Fanning, November 24, 2009.

Subject: Re: fsc_color problem on IDL7.1
Posted by [David Fanning](#) on Mon, 25 May 2009 04:01:29 GMT
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Dick French writes:

> David - thanks for the quick work! I noticed that decomposedcolor.pro
> was written next November - we must have gotten a special prerelease
> version!
> Dick
>
>
> ; MODIFICATION HISTORY:
> ;
> ; Written by: David W. Fanning, November 24, 2009.

Geez, no wonder I feel like the summer is almost over. :-(

Cheers,

David

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

Subject: Re: fsc_color problem on IDL7.1
Posted by [ben.bighair](#) on Mon, 25 May 2009 11:51:00 GMT
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On May 25, 12:01 am, David Fanning <n...@dfanning.com> wrote:

> Dick French writes:
>> David - thanks for the quick work! I noticed that decomposedcolor.pro
>> was written next November - we must have gotten a special prerelease
>> version!

```
>> Dick
>
>> ; MODIFICATION HISTORY:
>> ;
>> ; Written by: David W. Fanning, November 24, 2009.
>
> Geez, no wonder I feel like the summer is almost over. :-(
>
```

As usual, you are ahead of your time!
