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Subject: Re: Problem displaying images on 8 bit monitor

Posted by [mark](#) on Tue, 10 Oct 2006 12:55:14 GMT

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Hello,

This is how my !d system variable looks like (see below). Isn't it a bit strange that the N\_COLORS variable says 16.7 million whereas in Windows systems settings, the graphic card is set to 8 bits? There is another graphic card for a normal monitor, which is inactivated but may this be influencing the idl settings..?

help, /structure, !d

\*\* Structure !DEVICE, 17 tags, length=84, data length=84:

|            |        |          |
|------------|--------|----------|
| NAME       | STRING | 'WIN'    |
| X_SIZE     | LONG   | 256      |
| Y_SIZE     | LONG   | 256      |
| X_VSIZE    | LONG   | 256      |
| Y_VSIZE    | LONG   | 256      |
| X_CH_SIZE  | LONG   | 7        |
| Y_CH_SIZE  | LONG   | 10       |
| X_PX_CM    | FLOAT  | 54.0000  |
| Y_PX_CM    | FLOAT  | 96.0000  |
| N_COLORS   | LONG   | 16777216 |
| TABLE_SIZE | LONG   | 256      |
| FILL_DIST  | LONG   | 1        |
| WINDOW     | LONG   | 3        |
| UNIT       | LONG   | 0        |
| FLAGS      | LONG   | 328124   |
| ORIGIN     | LONG   | Array[2] |
| ZOOM       | LONG   | Array[2] |

Jo Klein skrev:

> Hi Mark,  
> This reminds me of colour allocation issues that were present in ancient  
> UNIX environments, where the number of colours allocated to IDL was  
> limited by a number of factors. I think Windows will reserve a number of  
> colours on an 8 bit device for its own purposes, such as window  
> decorations. Is there an option to increase the number of colours for  
> your graphics card? What are the contents of the !d variable? In  
> particular, !d.colors? What happens when you try to display a window  
> with window,colors=256? Do you run your monitor as a dual-head display,  
> or is it mirroring the contents of your primary monitor?  
> Just a few wild guesses,  
> Jo

>

> mark wrote:

>> Hi David,

>>

>> Here are how the images look. Both of these images are of the same

>> variable:

>> `bytsc1(bindgen(256) # bindgen(256))`

>>

>> This first image is how it should look, and it does using other display

>> programs on my monitor:

>>

>> [http://hem.passagen.se/fysikern/idl/normal\\_display.tif](http://hem.passagen.se/fysikern/idl/normal_display.tif)

>>

>> This image is a screen-capture using TVRD() of the same variable

>> displayed in IDL using either TV and TVSCL.

>>

>> [http://hem.passagen.se/fysikern/idl/idl\\_display.tif](http://hem.passagen.se/fysikern/idl/idl_display.tif)

>>

>>

>> The monitor I have is a CRT high-resolution mammography monitor (around

>> 1500x2500 pixels)

>>

>> Any helpful hints?

>>

>>

>> Mark

>>

>>

>>

>> mark skrev:

>>

>>

>>> Hi David,

>>>

>>> Thanks for you responses yesterday but I still can't get the images

>>> displayed properly. I'm sorry for insuating that IDL was at fault! :-)

>>> I'm sure I'm not doing something right...

>>>

>>> In response to your suggestions yesterday:

>>> TV, `bindgen(256) # bindgen(256)` yields a strange looking image (as

>>> expected)

>>>

>>> TVSCL, `bindgen(256) # bindgen(256)` gives me an image of the type I've

>>> been getting: a gradient consisting of narrow bands (or

>>> tiles/contours). There are about 30 such distinct bands along the

>>> gradient. I'm not sure if that number is significant. It would help if

>>> I could send you a screen-dump or something to show you what I mean.

>>>

```
>>> TV, bytscl(bindgen(256) # bindgen(256)) gives the same result as above
>>> with the bands.
>>>
>>> Byte scaling my own images doesn't change anything (they're already in
>>> byte format).
>>>
>>> So I'm still in the same situation...
>>>
>>>
>>> David Fanning skrev:
>>>
>>>
>>>> mark writes:
>>>>
>>>>
>>>> >So, there is something not set up right in my IDL environment...
>>>> >and I have no idea what it is...
>>>>
>>>> I rather doubt this. :-)
>>>>
>>>> Can you humor me? Try these commands:
>>>>
>>>> IDL> Loadct, 0
>>>>
>>>> Is this what you are seeing:
>>>>
>>>> IDL> TV, bindgen(256) # bindgen(256)
>>>>
>>>> What about this?
>>>>
>>>> IDL> TVSCL, bindgen(256) # bindgen(256)
>>>>
>>>> What about if you scale your image before you display it:
>>>>
>>>> IDL> TV, BytScl(image)
>>>>
>>>> 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.")
>>
>>
```

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