
Subject: Re: converting window into a image

Posted by [David Fanning](#) on Tue, 17 Jan 2006 20:55:05 GMT

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CD writes:

> i am a novice with IDL, so wanted some help.
>
> I used the window and tvscl to display a couple of pictures in the same
> window in a particular order. Now the way these images are displayed in
> the window, i want to copy the entire thing into one image. so that
> that image when opened using a image viewer will show those pics the
> same way as in the window of IDL.

Suppose you want to make a JPEG file. First display
your images in the window. Then type this:

```
void = TVRead(/JPEG, Filename='test')
```

That's it. Don't put a file extension on the file
name. It will be added automatically. :-)

You can find TVREAD here:

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

You can pretty much save the file in any format you like.
Just set the appropriate keyword.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Subject: Re: converting window into a image

Posted by [CD](#) on Tue, 17 Jan 2006 21:32:36 GMT

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thanks a lot..this was exactly what i needed!!

cheers,

-cd

Subject: Re: converting window into a image
Posted by [savoie](#) on Wed, 18 Jan 2006 18:13:52 GMT
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David Fanning <davidf@dfanning.com> writes:

> You can find TVREAD here:
>
> <http://www.dfanning.com/programs/tvread.pro>
>
> You can pretty much save the file in any format you like.
> Just set the appropriate keyword.

O.k. everyone, I'm a huge fan of the tvread(). But I want to know is, is there a way to force white to actually be white when writing a png?

When I start my idl session, I use Liam's excellent startup ideas for setting windowing and color.

```
device, true=24  
window, /free, /pixmap, colors=-10  
wdelete, !d.window  
device, retain=2, decomposed=0, set_character_size=[10,12]  
device, get_visual_depth = depth
```

So then say for example, I'm running these commands.

```
x = indgen( 50 )  
y = sin( x )  
plot, x, y, BACKGROUND= fsc_color( 'white', 250 ), color= fsc_color( 'black', 251 )  
x = tvread(/png, FILENAME= "test", /NODIALOG, quality=100)
```

When I examine the output png, the background is not white, but some combination of R:255, G: 251, B:255., and R:247, G:256, B:247, etc...

It doesn't matter on the screen, but when I print out my plots, they come out with a green or yellow tint and against the white margins, they just look kinda yucky.

Can anyone help? Did I miss that tutorial?

Thanks
Matt

--

Matthew Savoie - Scientific Programmer

Subject: Re: converting window into a image
Posted by [David Fanning](#) on Wed, 18 Jan 2006 18:39:21 GMT
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Matt writes:

```
> O.k. everyone, I'm a huge fan of the tvread(). But I want to know is, is
> there a way to force white to actually be white when writing a png?
>
> When I start my idl session, I use Liam's excellent startup ideas for setting
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> When I examine the output png, the background is not white, but
> some combination of R:255, G: 251, B:255., and R:247, G:256, B:247, etc...
>
> It doesn't matter on the screen, but when I print out my plots, they come out
> with a green or yellow tint and against the white margins, they just look
> kinda yucky.
>
> Can anyone help? Did I miss that tutorial?
```

Humm. Weird.

I just typed those commands, opened the PNG file up in Photoshop
and the whites are as white as can be. The Info palette confirms
values of [255,255,255] as I run the cursor over the image.

I suspect the problem is here:

```
> device, true=24
```

> window, /free, /pixmap, colors=-10

What in God's name is that Window command doing there!?
(I know why it *used* to be there, but it is no longer
needed on 24-bit displays.)

What happens if you remove it?

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: converting window into a image
Posted by [David Fanning](#) on Wed, 18 Jan 2006 18:44:43 GMT
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Matt writes:

> When I examine the output png, the background is not white, but
> some combination of R:255, G: 251, B:255., and R:247, G:256, B:247, etc...

I suppose another possibility is an old version of TVRead.
I used to COLOR_QUAN PGN files, but I changed that in May of 2002.
Here is the latest:

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

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: converting window into a image
Posted by [David Fanning](#) on Wed, 18 Jan 2006 18:47:50 GMT
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Matt writes:

- > When I examine the output png, the background is not white, but
- > some combination of R:255, G: 251, B:255., and R:247, G:256, B:247, etc...

Oh, here is *another* possibility! (I should just take five minutes and think about this, I guess, but that wouldn't have as much suspense.) If you are displaying the PNG file in the *&#\$# Internet Explorer, the whites could probably be any damn color! Until Microsoft gets it together you better look at PNG files in something else.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Subject: Re: converting window into a image
Posted by [savoie](#) on Wed, 18 Jan 2006 21:37:34 GMT
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David Fanning <davidf@dfanning.com> writes:

- > Matt writes:
- >> Can anyone help? Did I miss that tutorial?
- >
- > I suspect the problem is here:
- >
- >> device, true=24
- >> window, /free, /pixmap, colors=-10
- >
- > What in God's name is that Window command doing there!?
- > (I know why it *used* to be there, but it is no longer
- > needed on 24-bit displays.)

I'm sure they're in there because I've been using IDL for a long time?

- > What happens if you remove it?

I removed all of my start up commands. So it's not running any IDL startup script, (verified this because it couldn't find fsc_color()) when I tried to

run it first.

I open up the gimp and I get the same problem, mostly R:248 G:252 B:248.

So, long story, short, with no startup commands, I get the same issues. I've had this on several versions of IDL. I'm currently running 6.2, under SuSE Linux 9.x.

I also tried with just these commands in the startup file.

```
device, true=24  
device, retain=2, decomposed=0, set_character_size=[10,12]  
device, get_visual_depth = depth
```

I get the same thing.

Anyone with suggestions?

Thanks
Matt

WOW. Here's a suprising aside! With no startup file, if my IDL window is open in the background, in my generated png, I get what is in my foreground? See it here: <http://cires.colorado.edu/~savoie/test.png>

Hmm. I wonder if I had a backing store setup in my idl_setup.pro. Sorry, Looks like a false alarm, but I'll leave it in here in case someone else has this problem and finds this on google. This is apparently the fixer.

I also have in my idl_startup.pro:
device, retain=2, decomposed=0, set_character_size[10,12]

--

Matthew Savoie - Scientific Programmer
National Snow and Ice Data Center
(303) 735-0785 <http://nsidc.org>

Subject: Re: converting window into a image
Posted by [David Fanning](#) on Wed, 18 Jan 2006 22:04:25 GMT
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savoie@nsidc.org writes:

> I removed all of my start up commands. So it's not running any IDL startup
> script, (verified this because it couldn't find fsc_color()) when I tried to
> run it first.
>
> I open up the gimp and I get the same problem, mostly R:248 G:252 B:248.
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> So, long story, short, with no startup commands, I get the same issues.
> I've had this on several versions of IDL. I'm currently running 6.2, under
> SuSE Linux 9.x.
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> I also tried with just these commands in the startup file.
>
> device, true=24
> device, retain=2, decomposed=0, set_character_size=[10,12]
> device, get_visual_depth = depth
>
> I get the same thing.

Humm. I assume you are using the latest version of TVREAD, etc.

Could it be GIMP? Have you tried in another piece of software?

Do you have a 16-bit display or 24-bit?

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: converting window into a image
Posted by [savoie](#) on Wed, 18 Jan 2006 22:30:59 GMT

David Fanning <davidf@dfanning.com> writes:

> savoie@nsidc.org writes:

>

>> I removed all of my start up commands. So it's not running any IDL startup

>> script, (verified this because it couldn't find fsc_color()) when I tried to

>> run it first.

>>

>> I open up the gimp and I get the same problem, mostly R:248 G:252 B:248.

>>

> Humm. I assume you are using the latest version of TVREAD, etc.

Yup, just grabbed it from your site.

> Could it be GIMP? Have you tried in another piece of software?

Nope, I tried it in firefox, and gimp, and I've seen it mostly when I print something out on a color printer.

> Do you have a 16-bit display or 24-bit?

This might be the trick. It looks like I'm running a 16 bit color? Maybe I'll get my admin to change it to 24bit color and I'll see how that works.

IDL> help, /device

Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X Z

Current graphics device: X

Server: X11.0, The XFree86 Project, Inc, Release 40300001

Display Depth, Size: 16 bits, (1600,1200)

Visual Class: TrueColor (4)

Bits Per RGB: 6 (5/6/5)

Physical Color Map Entries (Emulated / Actual): 256 / 64

Colormap: Shared, 65536 colors. Translation table: Bypassed

Graphics pixels: Combined, Dither Method: Ordered

Write Mask: 65535 (decimal) ffff (hex)

Graphics Function: 3 (copy)

Current Font: *-*-bold-r-*-15-*-*-*-*-*-, Current TrueType Font: <default>

Default Backing Store: Pixmap.

Thanks

Matt

--

Matthew Savoie - Scientific Programmer
National Snow and Ice Data Center
(303) 735-0785 <http://nsidc.org>

Subject: Re: converting window into a image
Posted by [David Fanning](#) on Wed, 18 Jan 2006 22:47:53 GMT
[View Forum Message](#) <> [Reply to Message](#)

Matt writes:

```
> This might be the trick. It looks like I'm running a 16 bit color? Maybe
> I'll get my admin to change it to 24bit color and I'll see how that works.
>
>
>
> IDL> help, /device
> Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X Z
> Current graphics device: X
>   Server: X11.0, The XFree86 Project, Inc, Release 40300001
>   Display Depth, Size: 16 bits, (1600,1200)
>   Visual Class: TrueColor (4)
>   Bits Per RGB: 6 (5/6/5)
>   Physical Color Map Entries (Emulated / Actual): 256 / 64
>   Colormap: Shared, 65536 colors. Translation table: Bypassed
>   Graphics pixels: Combined, Dither Method: Ordered
>   Write Mask: 65535 (decimal) ffff (hex)
>   Graphics Function: 3 (copy)
>   Current Font: -*-*-bold-r-*-15-*-*-*-*-*-, Current TrueType Font: <default>
>   Default Backing Store: Pixmap.
```

Ah, there you go. I think that is the problem. When reading back colors off the display, I can't get a full 8 bits in each channel. Thus, a full white [255,255,255] is probably impossible.

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: converting window into a image
Posted by [David Fanning](#) on Wed, 18 Jan 2006 22:51:40 GMT
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David Fanning writes:

> Ah, there you go. I think that is the problem. When
> reading back colors off the display, I can't get
> a full 8 bits in each channel. Thus, a full white [255,255,255]
> is probably impossible.

And I can imagine, Matt, that this is a bit of a hardship
when working with snow and ice data. Your sys admin people
will surely be sympathetic. If not, let us know, and we will
get a petition together on your behalf. :-)

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: converting window into a image
Posted by [mattie](#) on Tue, 24 Jan 2006 15:35:47 GMT
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David Fanning wrote:

> Ah, there you go. I think that is the problem. When
> reading back colors off the display, I can't get
> a full 8 bits in each channel. Thus, a full white [255,255,255]
> is probably impossible.
>
> Cheers,
>
> David
> --

Well, I'm sure you've all been waiting on the edge of your seat to find
out. Drum roll please. Yep. That was the problem. 16 bit color
didn't do the trick. 24 bit color did.

Thanks for the help.

Matt (via personal account)
