

---

Subject: Re: How-to? color png

Posted by [David Fanning](#) on Mon, 29 Oct 2001 21:41:37 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Bernard K. (bknaepen@'skip'mac.com) writes:

> I would like to output the result of a shade\_surf graphic to a png file.  
> Here is what I tried.  
>  
> 1) window, 1, xsize=600, ysize=400  
> 2) data=findgen(600,400)  
> 3) DEVICE, RETAIN=2, DECOMPOSED=0  
> 4) xloadct to choose the color table BLUE/WHITE;  
> 5) shade\_surf, spec2d  
> 6) data=tvrd()  
> 7) write\_png, 'image.png', data  
>  
> Although the screen output is displayed in color with the BLUE/WHITE  
> table, the file 'image.png' only contains the axis but no colored  
> surface.  
>  
> Does anybody know what I am doing wrong?

You are not using TVREAD. :-)

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

IDL> image = TVRead(/PNG)

> ps: I am using IDL 5.5 on a Macintosh (OS X 10.1 in classic mode).

Oh, oh. All bets are off then. :-)

Cheers,

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438, E-mail: [david@dfanning.com](mailto:david@dfanning.com)

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

Toll-Free IDL Book Orders: 1-888-461-0155

---

---

Subject: Re: How-to? color png

Posted by [Andrew Cool](#) on Mon, 29 Oct 2001 21:45:38 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

"Bernard K." wrote:

```
>
> Hello,
> I would like to output the result of a shade_surf graphic to a png file.
> Here is what I tried.
>
> 1)window, 1, xsize=600, ysize=400
> 2)data=findgen(600,400)
> 3) DEVICE, RETAIN=2, DECOMPOSED=0
> 4) xloadct to choose the color table BLUE/WHITE;
> 5) shade_surf, spec2d
> 6) data=tvrd()
> 7) write_png, 'image.png', data
>
> Although the screen output is displayed in color with the BLUE/WHITE
> table, the file 'image.png' only contains the axis but no colored
> surface.
>
> Does anybody know what I am doing wrong?
>
> Thanks for any answer,
>
> Bernard.
>
> ps: I am using IDL 5.5 on a Macintosh (OS X 10.1 in classic mode).
```

Hi,

You probably need to insert :-

6a) TVLCT,r,g,b,/GET ; get the current colour tables

and then change 7 to be :-

7) write\_png, 'image.png', data, r,g,b ; write out colour tables too!

Andrew

```
-----
Andrew D. Cool      .->-.
Electromagnetics & Propagation Group    `-<-'
Surveillance Systems Division           Transmitted on
Defence Science & Technology Organisation 100% recycled
PO Box 1500, Edinburgh                  electrons
South Australia 5108
```

Phone : 061 8 8259 5740    Fax : 061 8 8259 6673  
Email : andrew.cool@dsto.defence.gov.au  
-----

---

---

Subject: Re: How-to? color png  
Posted by [David Fanning](#) on Mon, 29 Oct 2001 22:19:56 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Andrew Cool (andrew.cool@dsto.defence.gov.au) writes:

```
> You probably need to insert :-  
>  
> 6a) TVLCT,r,g,b,/GET ; get the current colour tables  
>  
> and then change 7 to be :-  
>  
> 7) write_png, 'image.png', data, r,g,b ; write out colour tables too!
```

On a super-duper Mac!? I doubt it.

More likely something like this (assuming he wants  
a flat 2D PNG image):

```
6) data=tvrd() ; Whoops! Not on 24-bit display.  
6a) data = Tvrd(True=1)  
6b) image2D = Color_Quan(data, 1, r, g, b, Colors=colors, Dither=dither)  
7) write_png, 'image.png', image2D, r, g, b
```

If he wants a 24-bit image, then:

```
6) data = TVRD(True=1)  
7) write_png, 'image.png', data
```

Cheers,

David

--

David W. Fanning, Ph.D.  
Fanning Software Consulting  
Phone: 970-221-0438, E-mail: [david@dfanning.com](mailto:david@dfanning.com)  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

---

---

Subject: Re: How-to? color png

Posted by [David Fanning](#) on Mon, 29 Oct 2001 22:24:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

David Fanning (david@dfanning.com) writes:

```
> 6) data=tvrd() ; Whoops! Not on 24-bit display.  
> 6a) data = Tvrd(True=1)  
> 6b) image2D = Color_Quan(data, 1, r, g, b, Colors=colors, Dither=dither)  
> 7) write_png, 'image.png', image2D, r, g, b
```

Whoops! I just stole this out of TVRead. Line 6b should read something like this:

```
6b) image2D = Color_Quan(data, 1, r, g, b, Colors=256, Dither=1)
```

Cheers,

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438, E-mail: david@dfanning.com

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

Toll-Free IDL Book Orders: 1-888-461-0155

---

---

Subject: Re: How-to? color png

Posted by [Andrew Cool](#) on Mon, 29 Oct 2001 22:52:48 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

David Fanning wrote:

```
>  
> Andrew Cool (andrew.cool@dsto.defence.gov.au) writes:  
>  
>> You probably need to insert :-  
>>  
>> 6a) TVLCT,r,g,b,/GET ; get the current colour tables  
>>  
>> and then change 7 to be :-  
>>  
>> 7) write_png, 'image.png', data, r,g,b ; write out colour tables too!  
>  
> On a super-duper Mac!? I doubt it.
```

OK, I'll shut up then, and stick to VMS.

Of course, the world \*should\* have the adopted the British BBC  
Microcomputer  
rather than IBM or Apple. Then we'd truly have some StrongARM muscle  
with  
a decent OS.

But I'll shut up.

ADC

---

---

Subject: Re: How-to? color png  
Posted by [Bernard K.](#) on Tue, 30 Oct 2001 09:16:16 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

I tried all the combinations proposed and they all work nicely. For the  
surface I plot (and on my super-dupper mac :-) with the number of  
colors used set to 256) the output I prefer is obtained by:

```
tvlct, r, g, b, /get  
and  
write_png, 'image.png', datar,r,g,b  
However I have to set decomposed to 1.
```

Thanks to all,

Bernard.

In article <3BDDDDC0.2B76870F@dsto.defence.gov.au>, Andrew Cool  
<andrew.cool@dsto.defence.gov.au> wrote:

```
> David Fanning wrote:  
>>  
>> Andrew Cool (andrew.cool@dsto.defence.gov.au) writes:  
>>  
>>> You probably need to insert :-  
>>>  
>>> 6a) TVLCT,r,g,b,/GET ; get the current colour tables  
>>>  
>>> and then change 7 to be :-  
>>>  
>>> 7) write_png, 'image.png', data, r,g,b ; write out colour tables
```

>>> too!  
>>  
>> On a super-duper Mac!? I doubt it.  
>  
>  
> OK, I'll shut up then, and stick to VMS.  
>  
> Of course, the world \*should\* have the adopted the British BBC  
> Microcomputer  
> rather than IBM or Apple. Then we'd truly have some StrongARM muscle  
> with  
> a decent OS.  
>  
> But I'll shut up.  
>  
> ADC

---

---

Subject: Re: How-to? color png  
Posted by [Andrew Cool](#) on Tue, 30 Oct 2001 22:31:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

"Bernard K." wrote:

>  
> I tried all the combinations proposed and they all work nicely. For the  
> surface I plot (and on my super-dupper mac :-) with the number of  
> colors used set to 256) the output I prefer is obtained by:  
>  
> tvlct, r, g, b, /get  
> and  
> write\_png, 'image.png', datar,r,g,b  
> However I have to set decomposed to 1.  
>  
> Thanks to all,  
>  
> Bernard.  
>

Bernard,

I love you... ;-)

Ockam's Razor wins again.

Andrew

-----  
Andrew D. Cool .->-.  
Electromagnetics & Propagation Group `-<-'  
Surveillance Systems Division Transmitted on  
Defence Science & Technology Organisation 100% recycled  
PO Box 1500, Salisbury electrons  
South Australia 5108

Phone : 061 8 8259 5740 Fax : 061 8 8259 6673  
Email : [andrew.cool@dsto.defence.gov.au](mailto:andrew.cool@dsto.defence.gov.au)  
-----

---

Subject: Re: How-to? color png  
Posted by [Mark Hadfield](#) on Tue, 30 Oct 2001 23:24:06 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

From: "Andrew Cool" <[andrew.cool@dsto.defence.gov.au](mailto:andrew.cool@dsto.defence.gov.au)>  
> "Bernard K." wrote:  
>>  
>> I tried all the combinations proposed and they all work nicely. For the  
>> surface I plot (and on my super-duper mac :-)) with the number of  
>> colors used set to 256) the output I prefer is obtained by:  
>>  
>> tvlct, r, g, b, /get  
>> and  
>> write\_png, 'image.png', datar,r,g,b  
>> However I have to set decomposed to 1.  
>  
> Ockam's Razor wins again.

Ockam's Razor may help in understanding the universe but I don't think it helps with IDL, which is *\*much\** more complicated.

Or to put it another way, if David didn't spend his time writing code that copes with *\*any\** combination of colour depths, colour models, device settings and IDL versions, then what would he do with his time?

Actually, there is a limitation with the above method. When the colour depth is 24-bit, it is possible to issue successive graphics command to the same window with different colour tables. In fact it might even be useful, eg:

```
loadct, 2      ; Load a nice colourful colour table
tv, ...       ; Draw an image
loadct, 0      ; Load a boring grey-scale colour table
xyouts, ...    ; Annotate the plot
```

This is arguably easier than using a single colour table & reserving some indices for the annotation colours.

But if you then read the image with the above method, the tvlct command will retrieve the current (grey-scale) colour table and the PNG file will look rather boring.

So I'll use David's method. David hasn't shaved with Ockam's Razor for years!

---

Mark Hadfield  
m.hadfield@niwa.cri.nz <http://katipo.niwa.cri.nz/~hadfield>  
National Institute for Water and Atmospheric Research

--

Posted from clam.niwa.cri.nz [202.36.29.1]  
via Mailgate.ORG Server - <http://www.Mailgate.ORG>

---

---

Subject: Re: How-to? color png  
Posted by [David Fanning](#) on Wed, 31 Oct 2001 00:08:11 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Mark Hadfield (m.hadfield@niwa.cri.nz) writes:

> Or to put it another way, if David didn't spend his time writing code that  
> copes with \*any\* combination of colour depths, colour models, device  
> settings and IDL versions, then what would he do with his time?

Oh, I don't know. He could spend a week trying to  
reverse a \*&%# axis. :-(

> So I'll use David's method. David hasn't shaved with Ockam's Razor for  
> years!

I gave up Ockam's Razor the day I saw object graphics,  
and I have never looked (or been) the same since.

Cheers.

David

P.S. The lovely wife points out that I could always



get a job. But I keep pointing out that the fallow  
times are when I do my best thinking (and programming).

--

David W. Fanning, Ph.D.  
Fanning Software Consulting  
Phone: 970-221-0438, E-mail: [david@dfanning.com](mailto:david@dfanning.com)  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

---