
Subject: image display by IDL

Posted by [fisher01](#) on Fri, 28 Dec 2001 04:46:49 GMT

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Hi, folks;

A member of our group meet a problem, she wants to display a raw multispectral satellite image. She writes a program using IDL (Interactive Data Language). At first she displays a .JPEG image as the interface, and then she try to display the raw satellite image but she couldn't get the correct color mapping table. Could you please tell us how to get the correct color mapping table for image display? Now she can get the correct color mapping table if she just opens .JPEG image or raw image, respectively.

Thank you very much for your help.

L.Zhang

P.S.

here is her program:

```
pro picture
  tvlct,rr,gg,bb,/get
  image=READ_IMAGE('picture.jpg')
  if (SIZE(image,/N_DIM) EQ 3) THEN $
    nimage=COLOR_QUAN(image,1,r,g,b)
    nnimage=CONGRID(nimage,!D.X_SIZE,!D.Y_SIZE)
    DEVICE,DECOMPOSED=0
    TVLCT,r,g,b
    tv,nnimage
    tvlct,rr,gg,bb
end
```

```
pro display
```

```
....
....
....
```

```
orig_image =fordisplay(106)
new_image=intarr(x,y)
for a=0,x-1 do begin
  for b=0,y-1 do begin
    new_image[a,y-1-b]=orig_image[a,b]
  endfor
endfor
```

```
TVSCL,CONGRID(new_image, x_size, y_size)
```

```
....  
....
```

```
end
```

```
function fordisplay,band  
COMMON UNITNUM  
point_lun,w,0  
head=lonarr(11)  
readu,w,head  
point_lun,w,0  
image=intarr(head[0],head[1])  
point_lun,w,head[10]+(band-1)*head[0]*head[1]*2L  
readu,w,image  
return,image/4095.0*255.0  
end
```

Subject: Re: Image display

Posted by [David Fanning](#) on Thu, 07 Aug 2003 16:39:17 GMT

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New2IDL writes:

- > Is there anyway to display images in a clear format without
- > bytscaling them. I have a dicom image which i can open using ImageJ
- > and Osiris. When i try to open the same without bytscaling in IDL, i
- > can see grains in the image and the number of grey shades in the image
- > is lesser and there are white patches.
- > Is there any way to fix this. The image has floating point values.

If you don't byte scale your data, IDL will use only the lowest 8 bits of information in each pixel value to display the data. This is why you are seeing those strange artifacts.

Dicom images are typically 16-bit images, so users sometimes like to choose what portion of their total data set is being byte scaled. This is called "windowing". Setting the TOP keyword on the BYTSCL command will adjust the contrast on the portion of the data that is in the "window".

You can read about this in this article (as well as find links to some programs):

http://www.dfanning.com/ip_tips/contrast.html

Cheers,

David

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

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