
Subject: Re: Plot two images in different color

Posted by [Peter Mason](#) on Tue, 30 Jul 1996 07:00:00 GMT

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> I want to plot two images (2-d bytarr) in one window. The background
> is black. Thus one image should be in white color while another one
> is in red color. I know how to load the color table.
> The routine I use to plot image is tv or tvscl.

It is fairly easy to display 2 (or more) images simultaneously on an 8-bit display. (I assume that you're using an 8-bit display.) The most straightforward way is to reduce the #colours in each image so that you can construct a compound LUT:

- . For simplicity, assume that the images have no common colours;
- . Find out how many colours are available, also considering the number you want to use "globally" (e.g., for the background and annotation);
- . Set up and load a LUT for your global colours and for each image's colours;
- . Rescale each image to map to its section in the LUT;
- . TV the images.

e.g., Your case where you have 2 "simultaneous" byte images - the first in greyscale and the second in "redscale". For simplicity you might not even use a global black - just include black twice (once for each image).

NC= !D.N_COLORS ;but must first have initialised IDL's display system
NC2=NC/2 ;half avail colours for each image

FAC=255.0/(NC2-1.0) ;colour scaling factor

J=BYTE(FINDGEN(NC2)*FAC) ;common stuff for sub-luts

Z=BYTARR(NC2) ;"zero" stuff for sub-luts

TVLCT,[J,J],[J,Z],[J,Z] ;load compound grey/red LUT

TV,greyscale/FAC ;grey image rescaled 0..255 => 0..NC2-1

TV,red_img/FAC +NC2 ;red image rescaled 0..255 => NC2..NC-1

It is important that IDL's display system be initialised before you look at !D.N_COLORS, otherwise you'll find it to show 256 (incorrectly) instead of 232 or so. One way to ensure this is to use something like:

```
window,/free,xsiz=16,ysiz=16,/pixmap &wdelete,!d.window  
shortly after starting IDL. If you want to squeeze the most out of  
IDL's display then use the WINDOW command's COLORS switch, e.g.,  
window,/free,xsiz=16,ysiz=16,/pixmap,colors=-1 ;leave 1 colour for other apps
```

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