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,grey_img/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

Peter Mason