Subject: Re: Interesting results when using IMAGE function
Posted by Paul Van Delst[1] on Tue, 19 Jan 2016 20:12:47 GMT
View Forum Message <> Reply to Message

Hello,

Maybe judicious usage of a x/y/zstyle keyword in the AXIS command?

I've had sort-of similar issues, but with regular plots.

(e.g.
https://groups.google.com/d/msg/comp.lang.idl-pvwave/G7RezL0 Y8WQ/ourv1kwuHOoJ)

cheers,

paulv

On 01/15/16 17:11, Steve Super wrote:
> I apologize ahead of time for the long post, but I think some
> background helps give some perspective. I am attempting to plot some
> lidar data using the IMAGE function and am running into some
> problems. Initially I tried to use the X and Y arguments, however
> this failed during the automatic gridding process. I then sought
> another efficient way to approach this problem and get the desired
> results.
>
> I have a data array of dimensions 1830x545 along with an X array with
> 1830 elements and Y array with 545 elements, which represent ground
> location and altitude, respectively. My way around using the auto
> gridding was to create 2D "images" out of the X and Y arrays using
> REBIN. This gives me 3 arrays of the same size which I then try to
> display using the IMAGE function with the 'image_dimensions' and
> 'image_location' arguments to plot all three, in hopes of hiding the
> X and Y images, while still using them to create the correct axes for
> my data.
>
> So my point in all of this is after displaying the X and Y arrays,
> the range of values is no longer the same as the max/min of the
> initial array. For example, when working with the altitude array, the
> data range gets messed up.
>
> First I display the image and draw the y-axis the using: alt =
> IMAGE(vfm_alt, image_dim=[1830,545], image_loc=low_left,
> axis_style=4) y_ax = AXIS('Y', target=alt, location='left')
>
> At this point I noticed the range of the axis was still in
> device(pixel) coordinates instead of the actual altitude values. So I
> type in the following commands to double check:

>
> print, alt.min, alt.max which prints the (correct) values:
> -0.45618850 29.975952
>
> However when I type the following: print, alt.yrange I get
> '-0.45618850   544.54381'
>
> So for some reason it is using the correct lower bound for the data
> range, but incorrectly using the array dimensions (or close to it)
> for the upper bound. Anyone have an idea as to what could be going on
> here?
>
> -Steve
>
> P.S. I understand this may not be the best way to do this, however
> after trying a few other things and not succeeding with them either I
> decided to think outside the box a bit.
>
